

CONTENTS

For January 1940

Looking Forward 15

THE EDITOR discusses the court decision that school children cannot be compelled to salute the flag if such action is contrary to their religious beliefs; advocates reorganization of the school district system into "natural" community units, and points to the needed reform in federal administration of vocational education.

Portfolio of Community Schools

Cover 17

Top: Old school and new community school, North Carolina. Center: Chesterfield School, Burke County, North Carolina, and Junior High School, Kensington, Md. Below: Transportation follows consolidation.

What Is the Future for School Building? 18

RAYMOND V. LONG

New England's First "Regional" 20

ALONZO G. GRACE

News From New York 22

W. K. WILSON

Trends in Great Lakes 25

T. C. HOLY

The Middle West Reports 26

I. O. FRISWOLD

Speaking for the South 28

W. F. CREDLE

In the Gulf States 30

RAY L. HAMON

Oklahoma Consolidates 32

IVAN REYNOLDS

California Community Schools 34

CHARLES BURSCH

It Happened in Utah 36

CHARLES H. SKIDMORE and J. R. TIPPETTS

Progress in the Northwest 39

C. E. ROBERTS, D. A. EMERSON and J. W. MCPHERSON

• • •

Schools and Scapegoats 41

DAVID D. HENRY defends the schools against charges that make them scapegoats for all the social ills of this day and generation.

Home Week Is Sixty Day Week 42

The account of a successful home and home improvement project conducted by the schools of Guernsey, Wyo., by W. F. HIMMELREICH.

Side Glances—

READ Keynoter

Long's article on page 18 and you will see why this month's portfolio is an outsize. The importance of the message and the nation-wide extent of the survey precluded briefer treatment. Because readers have clamored for more portfolios, we shall continue throughout 1940 to devote the usual 16 pages per issue to a special subject.

Next month's portfolio will consider Health. In March, as you can guess, the subject will be the A.A.S.A. Convention Report; in April, Summer Renovation (by request); in May, Transportation, and in June, Heating and Ventilating. To list the other titles in sequence would deny us the privilege of changing our minds, and editors must bend every effort to keep both mind and schedules flexible.

HOW accurate an impression of a teacher's work can the supervisor or the visitor get from a few minutes spent in the classroom? Are ratings based on quick impressions reliable? Principal Reed Fulton of West Seattle High School, Seattle, Wash., put these questions to the teachers themselves one day after a rapid turn around the building with the state supervisor of high schools. Their replies make a worth-while contribution to the schedule for February.

NOT enough is said in this monthly column about those significant articles on legislation and court decisions affecting the schools that appear monthly under the signature of M. M. Chambers. Mr. Chambers' coverage of the legal front enables The NATION'S SCHOOLS to perform a reader service that no other school publication is giving. Next month Mr. Chambers will treat a subject that confronts every school system—the ques-

Published monthly by The NATION'S SCHOOLS PUBLISHING Co., Inc., 919 North Michigan, Chicago, and 101 Park Avenue, New York. Otho F. Ball, president; Raymond P. Sloan, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. Yearly subscription, United States and Canada, \$2; foreign, \$3. Current copies, 25c each. Member Audit Bureau of Circulations. Copyright, 1940, by The Nation's Schools Publishing Co., Inc. Entered as second-class matter Jan. 16, 1928, at the Post Office at Chicago, Ill., under the Act of March 3, 1879.

CONTENTS

tion of the married girl pupil. It appears that about one school girl out of every 150 between the ages of 15 and 19 is married. While many of these are college students, probably 9000 are still in high school.

THE sharpshooters are out after H. K. Shibler whose article in the last issue touched upon the paucity of culture in the home background of many teachers. Those who come from the farm or who are second generation Americans have leveled at Mr. Shibler that instrument of attack that is mightier than the sword.

Supt. Harry A. Brown of Needham, Mass., has unwittingly written the follow-up on the Shibler article. Under his program the teachers' colleges will supply the cultural background of prospective teachers, along with education, professional scholarship and cultural participation. The Needham school administrator outlines a curriculum for the preparation of elementary school teachers containing eight subjects only. You will want to look into his proposal as soon as the February issue reaches your desk.

COMRADESHIP between teacher and pupil is fundamental to an effective guidance program. School tours or journeys are ideal for developing comradeship of this type and thus have double-barreled guidance efficiency. Next month the seventh grade advisory chairman of the high school at Grosse Pointe, Mich., will tell of a series of Saturday morning tours he has organized. Paul H. Junge finds that a pupil who is self-conscious in the classroom often comes out of his shell on a trip.

Index of Advertisers.....	13
Chalk Dust.....	52
As Others Say It.....	64
Better Plant Practices.....	78
News in Review.....	80
On the Air During January.....	82
Film Releases.....	84
Coming Meetings.....	84
Films in Review.....	84
Names in the News.....	86
The Bookshelf.....	88
It's Said That—.....	90

Democratic Principles Affecting Education..... 45

"Give the masses breadth of vision through a free diversified system of universal education," says HARRY L. STEARNS.

Basketball Ethics for Coaches..... 47

A 10 point program recommended by JOHN J. GALLAGHER, chairman, Coaching Ethics Committee, National Association of Basketball Coaches.

New Sights to See in St. Louis..... 48

The city and its schools have new developments to show members of the A.A.S.A. returning to St. Louis for their second visit in four years, according to HENRY J. GERLING.

Technic for Mimeograph Paper..... 51

Follow JOHN I. RUSSELL's instructions and you will achieve a mimeographed newspaper of which the school may well be proud.

Whose Children Profit Most From Extracurricular Activities?..... 53

Certainly not the children of farmers, F. BYRON CORY's study shows.

What Causes Teacher Illnesses?..... 54

Poor ventilation and overheated classrooms are the chief causes of illness among teachers, this survey reveals.

Cutting Transportation Costs..... 55

JULIAN E. BUTTERWORTH evaluates factors that affect transportation costs.

Janitor and Judge..... 58

M. M. CHAMBERS cites some recent decisions affecting the more general aspects and tenure of the janitor's employment.

Small Town School Publicity..... 62

L. D. HASKEW mentions four avenues of approach that are adaptable to small town publicity.

Cooperative Faculty Control..... 66

EDWIN WAGGENER enumerates the kinds of faculty committees that may be organized to vary the cooperative procedure in school administration.

Philanthropy in Public Schools..... 68

Foundation grants to experimental and demonstration schools have profoundly influenced public education, says ERNEST V. HOLLIS.

Qualifications for Bus Drivers..... 70

Prescribed by the Kentucky State Board of Education for local authorities in employing school bus drivers.

The School Cafeteria

Designed for Today..... 72

A description of the cafeteria at the Clifford J. Scott High School, East Orange, N. J., by LAURA C. FAWCETT.

Stimulating Cafeteria Employees..... 76

OLIVE FAY outlines some procedures that have been used in the lunchrooms at Rochester, N. Y., to supplement the inadequate training of employees.

New Light on Seeing

An important announcement by the makers of the Mimeograph duplicator



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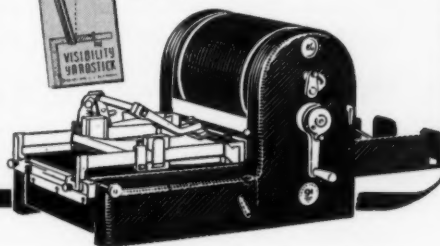
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LOOKING FORWARD

Significant Decision

MORE than a year ago in the Minersville school district of Pennsylvania several children whose parents were members of a religious sect known as Jehovah's Witnesses refused to participate in the daily salute to the flag in accord with the local board of education's rules and regulations. The children were suspended from school and the incident caused a small flurry of newspaper publicity. The parents appealed from the ruling of the board of education and a Quaker judge in the lower court upheld the contention of the parents that this compulsory salute was a violation of the guarantee of religious freedom.

The board of education appealed to the third United States Circuit Court of Appeals. On November 11 the three judges, two Episcopalians and one Jew, unanimously upheld the decision of the lower court and sustained the parents. The court held that school children cannot be compelled to salute the American flag if such action is contrary to their religious beliefs. Pending an appeal by the board of education to the United States Supreme Court, this decision appears as if it may have far-reaching effect on schools facing similar problems in other states.

The Community School

ONE of the significant educational trends growing out of the depression period is the increasing emphasis placed upon the community school. "Community school" may be considered as a descriptive term applying to that type of institutional organization which recognizes the partnership concept in American public education and the continuity of the educational process on the adult as well as the child level and which is well integrated with the community it serves. It may exist in large, as well as small, urban centers, although the most rapid development is taking place in the smaller, more flexible and intimate communities and in those places in which sound structural reorganization is changing the obsolete district system into a grouping of natural educational, economic and social interests based upon related urban and rural land use. This movement is only in its infancy but offers in many ways the most significant possibilities for general improvement in the general educational plan.

There are 126,849 school districts in the 48 states under the control of approximately 424,000 school board members or, roughly, one school board member to every two teachers. Nine states already operate under the town (community) and township districts with a total of 5842 administrative units; 26 states operate under the district system with 119,355 administrative units; 12 states have the county unit plan with a total of 1637 administrative areas, and one state is organized as a state system. Cities are organized as separate urban districts in all 48 states. The best educational conditions exist in the middle-sized cities. The poorest educational conditions are found in the vestigial frontier one room and two room independent school districts that still dominate the structure of more than half the states.

Structural reorganization is a vital and insistent need to obtain a basically sound local unit in terms of which educational conditions within a state can be more successfully equalized. State equalization plans based on current district structure mean subsidization of inefficiency and represent a poor method of procedure.

The desirable future school district should be based upon the function to be performed. Educational, social and economic considerations must predominate with arbitrary or academic concepts of size, numbers and financial ability as contributing but distinctly recessive and secondary factors. The development of the local school district to meet the child and adult educational needs and to serve as an impartial, nonpartisan, non-sectarian, classless agency for the development of adult social and political competency is of much greater importance than mere statistical standards of mechanical efficiency. From the functional standpoint, administrative and organization practice must adjust to the more important social needs.

Structural reorganization is a continuing process that started shortly after the war between the states and has continued to the present time. The next decade will probably witness unusual effort in this area, stimulated by the results of the 1929-39 depression period. The process of change will probably be more gradual than desired by the lay and educational leader groups and is more likely to proceed upon the democratic basis of local acceptance through recognition of need than through a mandatorily proposed central state plan. The dominant district of the future probably will be

the natural community in which the social, economic and educational interests and needs will predominate over size and mere numbers.

Reorganization of the district system in 26 states into natural communities or trade areas will provide a broader and more adequate financial base for current operation, the improvement of elementary education and the extension of secondary educational opportunity to children living in rural districts. This reorganization means larger expenditures for central secondary schools, enriched instructional programs and the extension of transportation facilities.

Needed Reform

THE highly centralized control of program and procedure that has grown out of the administration of the Smith-Hughes Act during the first twenty-two years of its operation has been of serious concern to an increasingly large number of educationists and educators. Organized labor has also viewed with grave misgivings many of the questionable practices arising from these ever-increasing federal controls.

This questioning came to a head in 1937 when President Roosevelt appointed the Advisory Committee on Education to investigate the existing conditions and to make recommendations for improvement. John Dale Russell, University of Chicago professor, made an exhaustive study of this problem for the committee and the results of his investigation, published by the government under the title of "Vocational Education," are recommended for thoughtful reading by those who would like to see control over vocational education returned to the states and to the communities. Upon the basis of the Russell study and on additional firsthand investigations of its own, the Advisory Committee on Education made specific recommendations for the improvement of federal relations to vocational education.

These recommendations were written into a bill by Congressman Larrabee (H.R. 6157) and presented to Congress toward the close of the 1939 session. A companion bill was introduced into the Senate by Senator George, co-sponsor of the George-Deen Act which, in 1937, doubled the amount of federal aid provided for vocational education by earlier legislation. Neither bill was reported out of committee but both will be considered early in the 1940 session. The George-Larrabee bill hopes by the process of amendment to make the following necessary improvements in the Smith-Hughes and George-Deen acts:

1. Limit federal control over the details of state vocational programs by providing that they conform only to the general requirements and intent of the federal acts instead of being subject to rigid control through supplementary and highly detailed bureaucratic regulations.

2. Raise the minimum age for federally subsidized vocational education from 14 to 16 years in conformity with current industrial conditions.

3. Return to qualified teacher training institutions within the states control over the training of teachers for federally subsidized vocational education.

4. Authorize the Department of Labor to determine the minimum labor standards under which apprentice training may be carried on in cooperation with industry and business. The bill does not provide for any control over vocational education by the Department of Labor when training is carried on full time within the public schools.

The entire purpose of these proposed amendments is to return control of the vocational program to the states where it may be sensibly decentralized and administered within each local school community in harmony with state practices for general education. If approved, there will no longer be any reason for power-conscious state administrators of Smith-Hughes and George-Deen work to dominate and control the vocational program on the plea that "the federal government requires it."

It will also make possible a return of control over teacher training to qualified state institutions without having qualifications of the teacher training staff, the courses given, their content, student membership qualifications and even the size of classes specified by a state administrative officer in accordance with detailed requirements which must be approved in Washington.

The provision that the Department of Labor shall determine fair labor standards when students are engaged in apprenticeship courses will prevent a recurrence of such scandalous exploitation of youth as was found in Mississippi and in several other states several years ago. The federally subsidized state directors of vocational education are too frequently involved in the politics of their states as well as the politics of the vocational group itself. There is little evidence in certain states that the welfare of the students engaged in vocational training always has been the first objective of these educators. The provision for determination of minimum labor standards by the Secretary of Labor upon the advice of a national advisory committee composed of equal representatives of employers and labor should provide an effective safeguard against further exploitation of youth.

This bill is a straightforward proposal to correct the weaknesses, abuses and undesirable centralized controls that the federal bureaucracy in charge of the administration of vocational education has developed during the first twenty-two years of its existence. The only reasonable objection to the proposed amendment is that it does not go far enough in correcting all of the undesirable central controls. It should have the whole-hearted support of those members of the teaching profession who believe in state and community direction of educational effort and who also believe in the value of a one way democratic system of public education.

The Editor

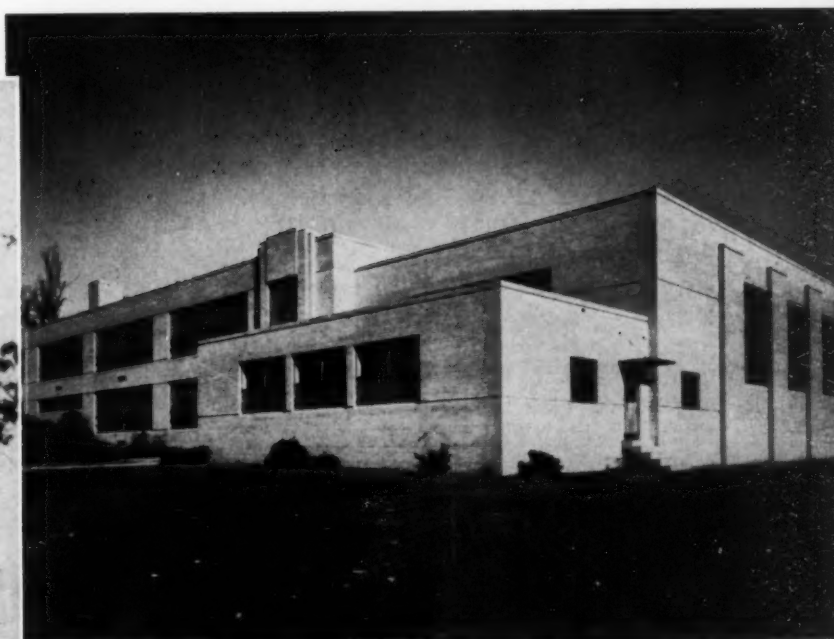


OLD



NEW

WINFALL COMMUNITY SCHOOL, PERQUIMANS COUNTY, N. C.



Portfolio of

COMMUNITY SCHOOLS

What Is the Future

RAYMOND V. LONG

IT IS surprising to most of us when we are faced with the fact that 3,000,000 children, or approximately 24 per cent, enrolled in public schools in rural communities are still housed in one room school buildings and 1,400,000, or 10 per cent, are housed in two room buildings.

These small schools are in most cases lacking in conveniences, sanitation and auxiliary spaces essential to a modern program of instruction, yet we are doing relatively little to correct these conditions except to lament the fact that they exist. On the contrary, we find that many of these small inadequate buildings are being constructed each year.

Of the total four year accredited high schools in the country 58.5 per cent have enrollments of less than 100 and 82 per cent have enrollments of less than 200. In these high schools of small enrollment, there are approximately 1,200,000 boys and girls (20 per cent of the total) who must in most cases be limited in their high school education to a circumscribed and inadequate educational offering. The size of the high school enrollment does not, of course, necessarily limit the educational offering, but the exorbitantly high per pupil cost of a comprehensive high school offering in the school of small enrollment does make such an offering practically impossible.

While these high schools of small enrollment with their one and two room buildings are found largely in the small cities of less than 10,000 population and in rural communities, yet they serve such a large number of pupils that we cannot dismiss the problem as inconsequential or inevitable and cannot resign ourselves to thinking that nothing can be done about it. Something can be done.

These facts are not new. They are well known to most national and local educational authorities. That so little, relatively, is being done to correct them is probably due to a lack of definite or projected educational planning on the part of school authorities and other agencies responsible for new school buildings

and educational offerings. In all too many cases in both urban and rural communities, we build new buildings costing huge sums of money designed to serve for the next fifty years and, upon careful analysis of the plans, find we have built "just some more school buildings." They lack in modern educational planning, are not flexibly designed so that they may be converted into buildings suitable for modern educational offerings, are located on sites and in communities with little reference to future community needs and, in general, are built with little reference to long-range educationally planned needs.

Long-Range Planning

Many cases can be cited to explain that care has been taken in both urban and rural communities to plan and locate school buildings in terms of a carefully developed long-range plan, but of the total school buildings in the country many have been built, even during the last five years, that could not be justified if measured by carefully prepared long-range educational and administrative planning.

The prospect of remedying mistakes that have been made in planning and locating school buildings becomes dimmer as new and better buildings are constructed because the heavy capital outlay makes abandonment impractical for many years to come. Those school administrative units that have low investments in school plants are in much better position to plan and to build in accordance with good projected planning than are those units that have made heavy investments in poorly planned and located buildings.

Local school authorities are frequently censured for lack of vision, unwillingness to plan for the future and various other faults that contribute so largely to the many glaring mistakes and waste of public funds in poorly planned and located school buildings; but is it reasonable

to expect these local authorities to take the initiative in developing long-range planning when the nature of such planning militates against their thinking and conception of their responsibility?

Local school authorities are usually elected or appointed on some basis of representation locally with the traditional and implied expectation that they will obtain for their ward or district its share of all appropriations. To expect such groups of local authorities to initiate a plan that would in most cases result in one or more districts or wards not being scheduled for new buildings or that would result in large consolidated buildings in some districts and small buildings in other districts is little short of unreasonable. The same authorities, however, can be convinced through patient guidance and leadership on the part of the state departments of education that such long-range planning is economically and educationally sound and generally they are willing and ready to adopt such programs if carefully and soundly developed, provided they have some authoritative body, as the state department of education, to which they can pass local objections and criticisms.

With here and there exceptions, it is generally recognized as axiomatic that buildings well-planned educationally are essential to good educational programs. There seems to be wide divergence in thinking, however, as to what constitutes good educational planning. A review of plans of buildings constructed during the last five years reveals that generally little attention has been given to the kind of planning we have talked loud and long about. It is the exception rather than the rule to find in these plans reasonably adequate provisions for such important phases of a modern educational offering as community activities, recreation, adult education, medical and dental clinics, student activities, dramatic and public speak-

for School Building?

Director of School Buildings
Virginia State Department of Education

ing, special and auxiliary spaces for primary grades, vocational subjects, music and community as well as school libraries.

While many of the buildings constructed in urban centers and some rural communities have made satisfactory provisions for many of these activities, the far larger number of buildings constructed in rural communities have made relatively little or no provisions for them. It should be remembered, too, that half the total school enrollment is housed in these buildings in rural communities. Something should and can be done about this.

What the future will determine by way of further federal aid for school buildings is problematical. There is a growing conviction, however, that the federal government must soon assume a much greater responsibility for public education and there is also a growing conviction that the federal government can well discharge that responsibility in part at least through financial aid to the states and local communities for school buildings. The federally aided school building programs during the last five years have proved highly satisfactory to all concerned and suggest a highly satisfactory method by which the government can discharge its responsibility to public education.

Federal Aid Based on Needs

When further federal aid becomes available for school buildings, it will not likely be based on unemployment relief but rather on school building needs to serve a reorganized or modernized educational offering measured in terms of long-range projected educational planning.

It has been recognized by the P.W.A. authorities in making allocations for school buildings during the last five years that some mistakes would no doubt be made in the educational planning of buildings and in the locations of buildings. Because of the fact that sufficient time to make surveys and long-range

studies could not be taken, the very nature of P.W.A. projects as set up in the congressional act had to be undertaken speedily as a measure of unemployment relief. Consequently, unless an application for a new school building was obviously so poorly conceived that it represented to the P.W.A. authorities a glaring mistake both in educational planning and in planning for projected future needs, there was little reason for rejecting or delaying approval of the application by the P.W.A. authorities if the proposed project complied well with the terms of the P.W.A. program.

It is recognized by all who have thought seriously on the matter of long-range planning for school buildings, educationally and economically, that little definite information is available as to actual school building needs in terms of projected planning for the nation as a whole. Attempts have been made in various cities and rural communities to develop careful projected planning involving reorganization, consolidation and improved educational planning in terms of modern concepts of educational offerings, but such attempts are spotty and cannot be used as any satisfactory basis for estimating nation-wide needs.

The consensus is that the states themselves are not ready to undertake state-wide studies and surveys through the state department of education unless some federal leadership and financial assistance are made available to encourage and finance such surveys and studies, nor is it reasonable to expect or to hope that local administrative units will undertake such surveys and studies.

Realizing the need for such surveys and studies, which would serve as recommendations to local administrative units, as well as recommendations to P.W.A. authorities in making allocations, the National Council on School Building Problems sponsored a bill in congress that would provide one million dollars a

year over a ten year period to be allocated to the various states on the basis of school population for the purpose of financing long-range surveys and studies. This bill gained considerable nation-wide support. The bill also carried with it an appropriation of one hundred million dollars per year over a ten year period for school building construction. In view of the pump-priming P. W. A. program inaugurated in the spring of 1938, the council was advised to withdraw the provision contained in the bill covering the construction of the school buildings but to continue its efforts in connection with the appropriation to continue surveys and studies. Ample provision was made in the congressional act of 1938 to cover the cost of such surveys and studies, but the machinery under which the appropriation was set up made these studies impracticable at that time.

Inaugurate Building Surveys

It is likely there will be a lull for a year or so in any further federal appropriation for school buildings or education, but it seems highly appropriate and fitting during this period to inaugurate a nation-wide program of surveys and studies that should result in definite findings and recommendations as to school building needs measured in terms of long-range educational and economic planning. These would serve as a basis for determining fairly accurately schoolhousing needs over the country and would also serve as a basis for allotting any federal monies that become available for school buildings.

The National Advisory Council on School Building Problems proposes to sponsor at the next session of Congress a bill that will provide financial assistance to the states to inaugurate through the state departments of education surveys and studies of school building needs. This step is one means by which it is believed something can be done about improving an inadequate and obsolete school housing condition and educational offering.



In October of last year the Housatonic Valley Regional High School opened its doors to pupils of six Connecticut towns.

New England's First "Regional"

ALONZO G. GRACE

Commissioner of Education, Connecticut

THE first regional high school in New England was opened at Falls Village in the town of Canaan, Conn., in October 1939. It is called the Housatonic Valley Regional High School and is located in the extreme northwest corner of the state about 100 miles north of New York and 50 miles west of Hartford, the nearest large city. The school will serve six Connecticut towns, embracing an area of approximately 277 square miles.

Instead of four weak and ineffective high schools in four separate towns, six towns have cooperated to organize one high school offering many opportunities to youth. The act which made possible this high school became effective June 11, 1937. The bill carried no state appropriation but had five major sections as follows:

1. It created the regional high school district No. 1 of Litchfield County, composed of three or more towns, and provided for the future enlargement of the district upon request of any adjoining town.

2. It created a regional high

school board composed of one person from each of the towns belonging to the district, to be appointed by the board of education of such towns. The person chosen might or might not be a member of the appointing board. Each member was to serve for a term of three years in rotation and the board was to perform the duties which otherwise would be performed by the town boards of education with particular reference to secondary education.

3. It authorized the regional board to purchase a site and to build and equip a high school for the benefit of the towns and for this purpose to issue bonds in the name and upon the credit of the town comprising the district in an amount not to exceed \$200,000.

4. The regional board was to administer the affairs of the high school and to employ teachers and other necessary employes.

5. It authorized the regional board to assess against each of the towns its proportional share of the cost of the building, equipping and operating of the regional high school.

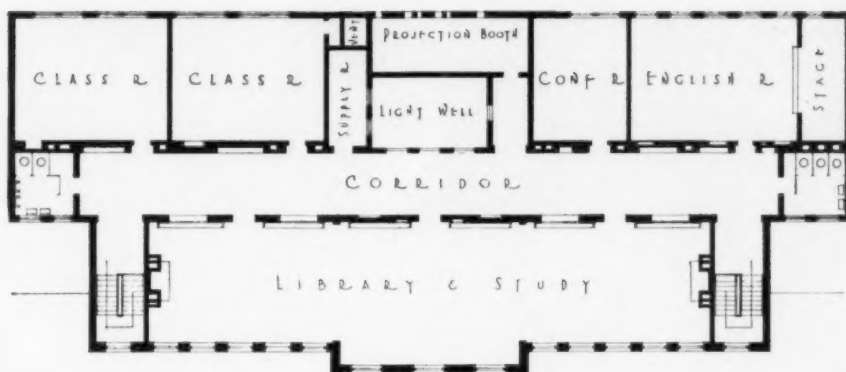
These payments were to be pro-rated among the towns on the basis of the average daily attendance in such school of pupils from each of the towns during the preceding year.

In general, the provisions of the act have proved to be satisfactory, perhaps with the single exception that the amount of \$200,000, a tentative figure, was not adequate for the building.

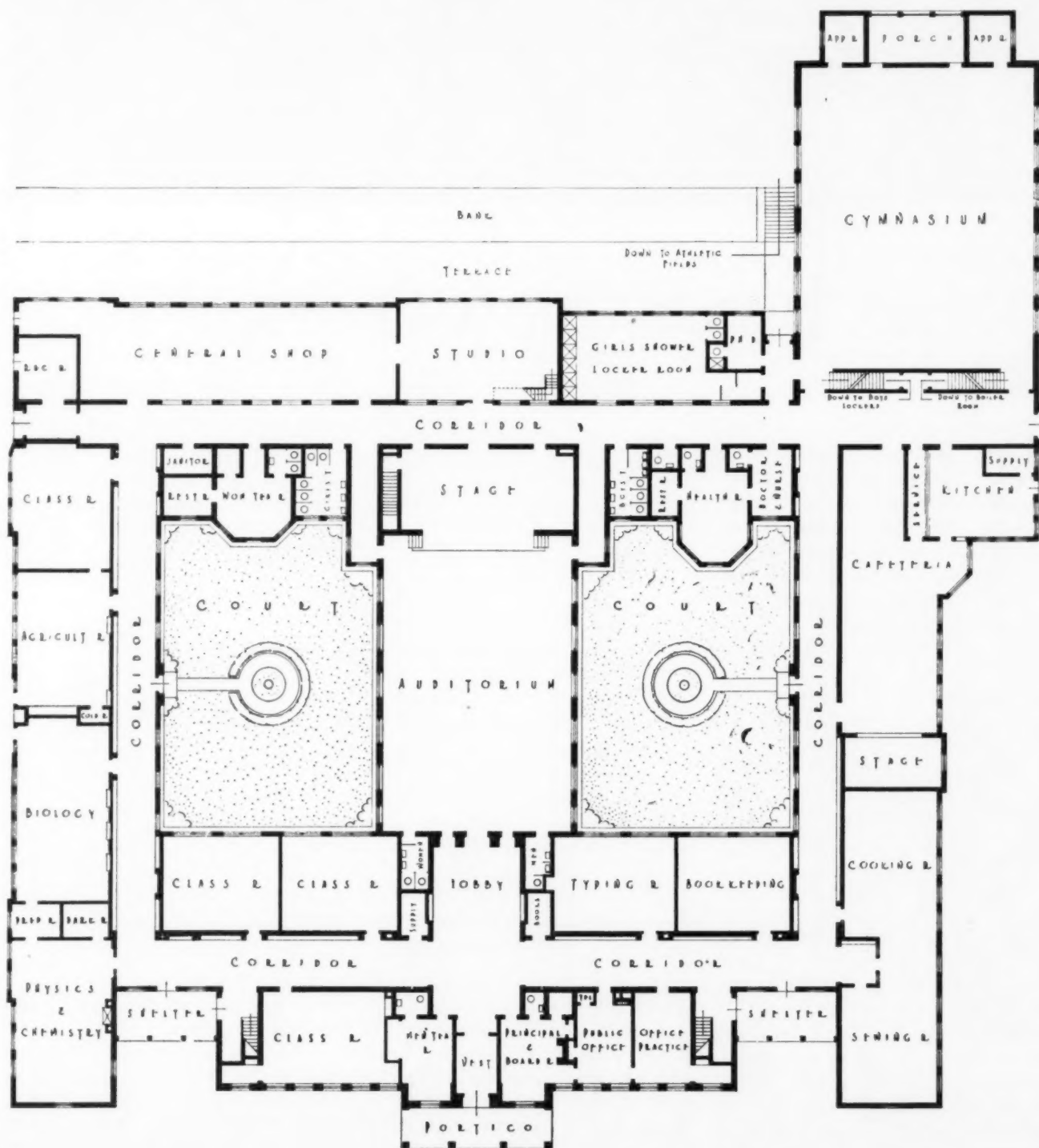
Another bad feature of the plan is the fact that there is no general permissive statute providing for other such organizations. In order to inaugurate a regional high school district special legislation is necessary. It is hoped that at the next session of the legislature, a general act will be submitted.

It has been possible to develop a comprehensive high school in the region, and with the program of the state department of education committed to an evaluation and appraisal of the school program, it is probable that this new school will be greatly aided by the results of the work of the instruction and lay committees. A broad program is contemplated with greater emphasis on vocational education and with the possibility of the inclusion of some trade education courses in the program.

Left: The Housatonic Valley Regional High School in the Town of Canaan, Conn., designed by Ernest Sibley, Litchfield, Conn., displays a character in harmony with the countryside. It is of brick and native stone and is located on a 65 acre site that was once farmland in a quiet valley of the upper Housatonic River. Below: In the first floor plan it can be seen how the architect took advantage of the spacious site. Limiting itself for the most part to one story, the plan provides convenient access to various parts of the building, according to John E. Nichols, the state supervisor of buildings and plans.



Above: Second floor plan, showing classroom section of this floor.





News From New York

W. K. WILSON

Supervisor, Department of School Buildings and Grounds
New York State Education Department

THE term "community school" may mean many things to many people. The interpretation usually placed upon it assumes the development of that type of school which becomes, through its building, equipment, grounds and educational program, the leading factor in the generation and development of a real American community spirit. This involves, in broad terms, the education and development of adults, as well as of children, to the end that the moral, physical and educational life of the community may be brought to a higher plane through a more complete understanding of the problems common to the members of a democratic society.

It may not be accurate to state that the development of community spirit is the primary motive behind the consolidation movement in rural school areas, but certainly it is one of the most favorable results of that movement. In New York State the development of the community school is identified closely, almost inseparably, with the central rural school movement. It is reasonable to say that the typical community

Year July 1-June 30	Number Centralizations	Districts Involved	Average Districts per Centralization	Total Districts Centralized
1925-26	17	81	4.8	81
1926-27	14	75	5.4	156
1927-28	10	68	6.8	224
1928-29	16	103	6.4	327
1929-30	25	246	9.8	573
1930-31	56	718	12.8	1291
1931-32	3	43	14.3	1334
1932-33	2	34	17.0	1368
1933-34	6	72	14.4	1440
1934-35	11	144	12.2	1584
1935-36	24	342	14.25	1926
1936-37	15	261	17.4	2187
1937-38	27	436	16.01	2623
1938-39	43	697	16.02	3320
	269	3320		
Additions since centralization				221
Total districts involved				3541

school in this state is the typical central rural school, for this type of school not only is providing better educational opportunities for the children of rural New York but, in addition, is the strongest single factor instrumental in building up a state-

wide interest in community problems and their solution.

The Central School Act was passed in 1915 but was ineffective until first amended in 1925. Seventeen districts were formed in that year and today there are 269 such districts in opera-

Left: Washington Academy building at Salem, N. Y., houses a central school for 23 districts. Although one of the first public secondary schools to be chartered by the regents of the university of the state, its original name is still proudly retained. The 16 acre tract on which the school was located formerly was a part of a private estate and the grounds already were landscaped when the school was dedicated in 1939.

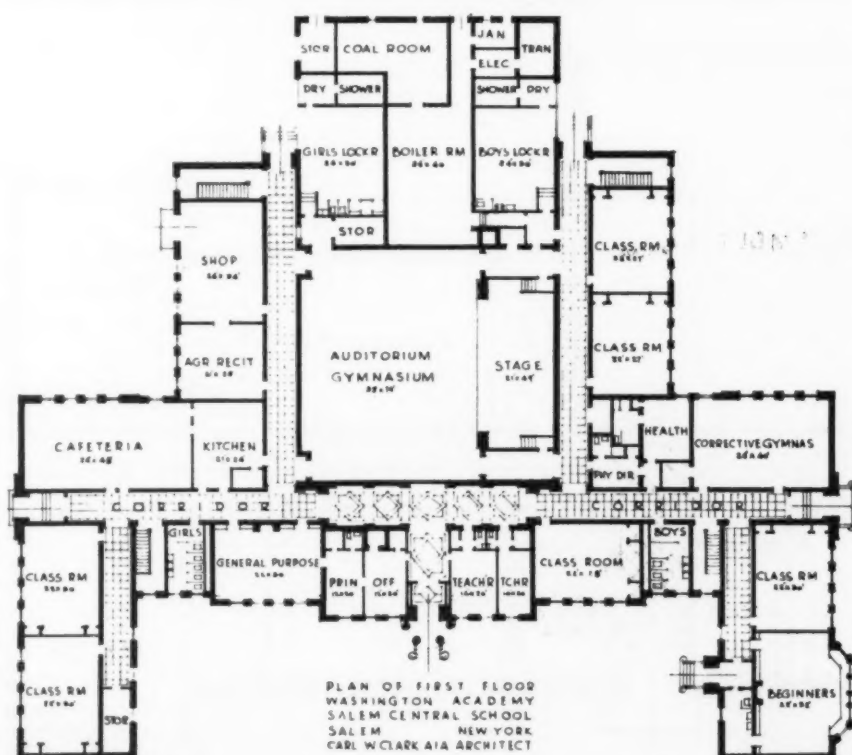
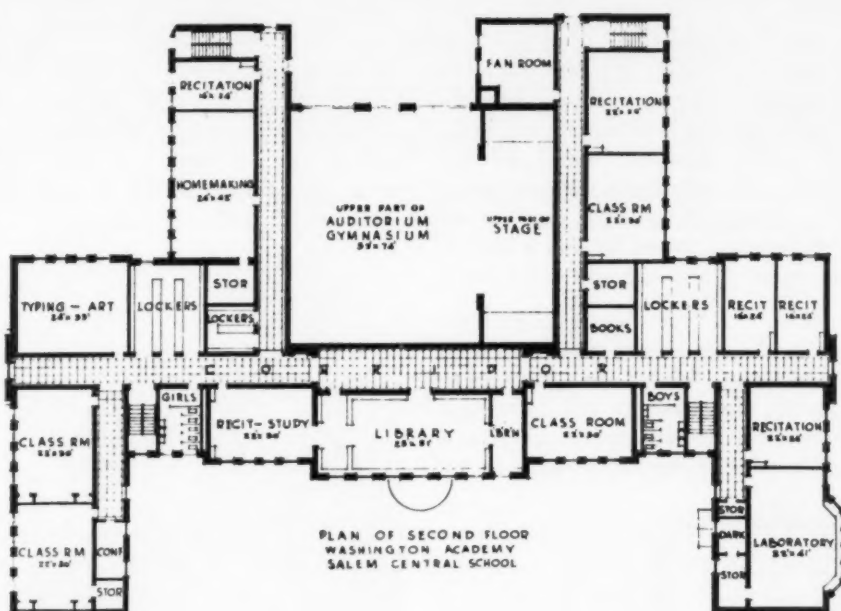
tion. The typical central rural school of today is made up of from 16 to 18 small rural districts surrounding and united with a small village which formerly operated its own elementary and high school. The enrollment of this school is approximately 500, with from 55 per cent to 60 per cent of the pupils in the kindergarten and first six grades and the remainder in the upper six grades. The work of the seventh and eighth grades is organized as a part of the high school, creating in effect a junior-senior high school organization.

The modern school plant being provided to house this typical community school contains all facilities necessary for carrying on a well-rounded program of formal educational activities, a balanced program of health and physical education and a wide range of recreational activities

for developing the worthy use of leisure time. The administration of this program affords ample opportunity for adult participation in many worth-while community activities. Only brief mention can be made of the character and functions of the various school plant facilities.

The kindergarten is a room of 825 to 1000 square feet of floor area, with added space for toilet, wardrobe and storage. It is located usually at the southeast corner of the building, has a separate exit and is adjacent to a separate kindergarten playground and garden for the smaller children.

The elementary rooms are planned and equipped for the activity type of program and most of the special facilities of the entire building are planned for use by the elementary as well as the high school children. These special facilities, set up primarily for the high school pupils, include rooms for homemaking, shop, agriculture, science, commercial work, art, music and library work. In addition, there are, of course, rooms and equipment for the traditional subjects, such as history, mathematics and languages. The use of all facilities for evening classes for



adults is spreading rapidly over the state.

For the group activities of both school and community there are the well-equipped auditorium-gymnasium (in schools above 800 enrollment the auditorium and gymnasium are separate units), the combination cafeteria-general purpose room and ample outdoor recreational areas. These provide for the widest range of community activities, such as parent-teacher meetings, indoor and outdoor recreational activities, work in dramatics and music and public forum groups.

Truly with this rich field of opportunities for children and adults the modern school is the real center of community life and is well-named the "Community School." It is to be hoped that no false ideas of economy will permanently interrupt the continued development of this phase of American educational life.

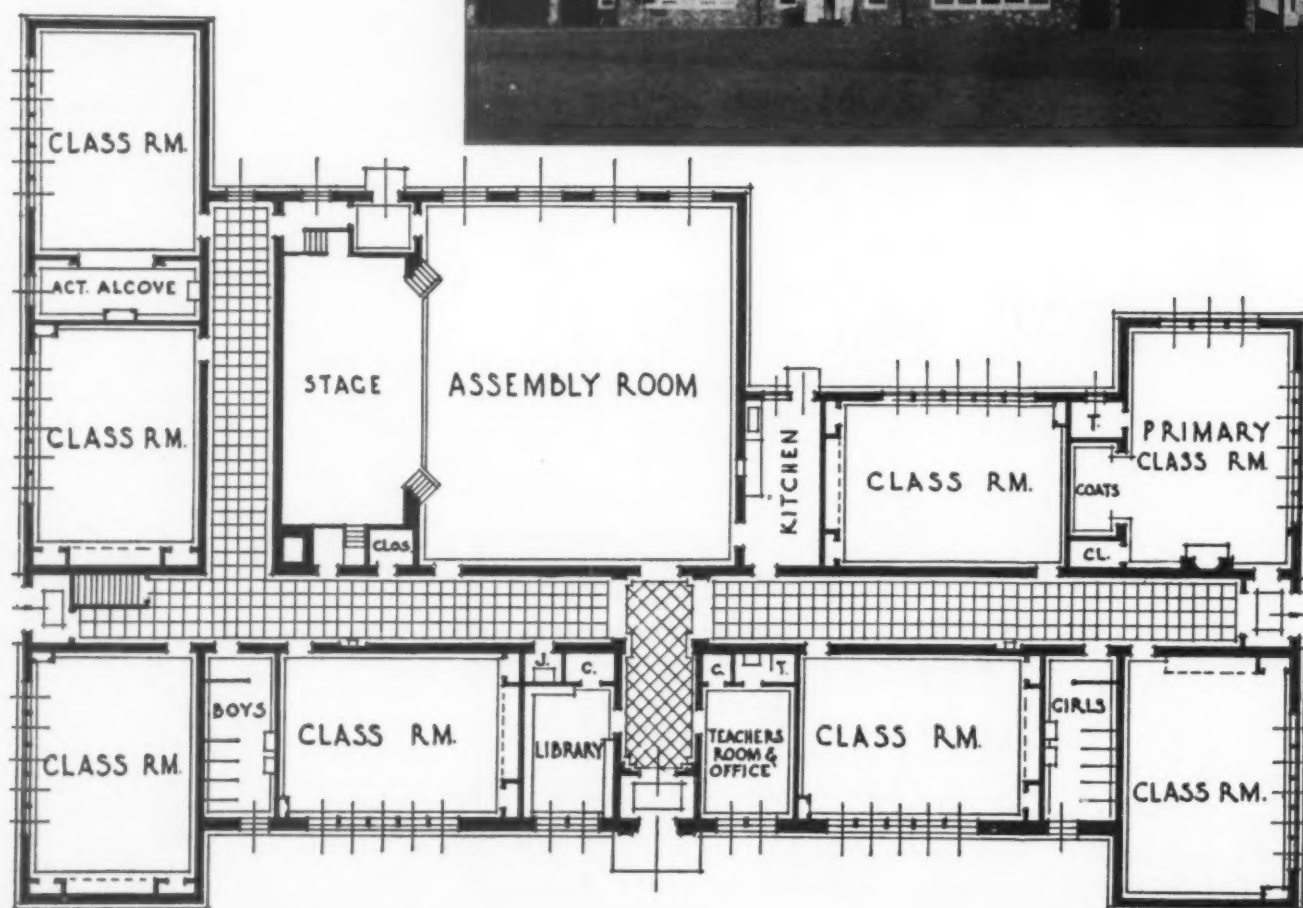


• ABOVE: Bethlehem Central High School, Delmar, N. Y., houses both the junior and senior high schools. In addition to 15 standard classrooms, there are rooms especially equipped for business, industrial arts, science, music, art, homemaking and agriculture. Other special rooms include a library, cafeteria, auditorium and gymnasium.

• BELOW: First floor plan and exterior, Holland Township Consolidated Elementary School in Hunterdon County, New Jersey. This building is a modern elementary school, plus a community center for a typical rural

area. It replaces four one room schools and one two room school. The building was constructed on an 8 acre plot of ground having ample space for parking and for play and near the geographic center of this rural town-

ship. The front of the center wing is built of native field stone and the other walls are of brick. The architects for the project were Tooker and Marsh of New York City, with Ira H. Davey of Englewood, N. J., as an associate.



Trends in Great Lakes

T. C. HOLY

Bureau of Educational
Research, Ohio State University



RECENTLY I addressed letters to the state superintendents of education of Illinois, Indiana and Michigan asking two questions regarding trends in school reorganization and examples of school planning that emphasize the community school idea. These two questions, with a brief digest of their answers as furnished by these three departments of education, are here given. In the case of Ohio I shall endeavor to answer those questions myself.

QUESTION 1: *To what extent are school districts now being reorganized and central or community schools established? Also, what are the future prospects in this direction?*

Illinois.—There is a tendency to reorganize some districts in Illinois. This possibility has always been provided for by law but, because there has been no incentive except from an educational viewpoint, little has been done. However, the new distribution law passed by a recent session of the General Assembly included provisions for state reimbursement to districts for free transportation.

Another provision of the bill was the removal of the pegged minimum daily attendance a school is permitted to have in order to participate in state distribution of funds. Prior to this change every school was given an enrollment of 18 pupils and received state aid on that basis if the enrollment was less than 18.

Indiana.—There is no trend of consolidation of school districts in Indiana, although there is constant

There has not been a single accident in transporting pupils to the Beaverton Rural Agricultural School, Beaverton, Mich., during the last ten years.

elimination of one room rural schools and consolidation within a township. Each year approximately 150 one room schools are being closed.

Michigan.—A study of the statistics on school districts in this state will show a distinct tendency toward reorganization in the direction of community schools. Between 1933 and 1938 the number of school districts has decreased by 355. During the same period primary districts, including closed school districts, have decreased by 375. These figures do not take into account the hundreds of districts that have been partially closed.

Ohio.—The School Foundation Law, enacted in Ohio in 1935, required each county board of education to prepare a plan of school organization for each county for the years 1935, 1936, 1937 and 1938. This plan, when approved by the director of education, then became the official plan of the subsequent year. This provision has had a tremendous influence on school reorganization in Ohio, particularly in the elimination of one room schools. As evidence of this there were 2387 one room schools in operation in 1935-36 and 1094 in 1939-40, a decrease of 1293. Also, during this same period, the number of school districts has been reduced from 1881 to 1680, a decrease of 201.

QUESTION 2: *Select one or two examples of outstanding school plan-*

ning with particular reference to a community school.

Illinois.—The Joy Consolidated District, Joy, Ill., R. A. Dahl, superintendent.

Michigan.—There are many school districts that are making a distinct effort in planning educational services on the community basis.

In general, the old school plant is used and adapted as well as can be done with little financial outlay. A few school districts making distinct efforts along this line are: Lincoln Consolidated School at Ypsilanti, Marlette, Beaverton, Dowagiac, Mesick, Rehms and Merritt.

Ohio.—In the "Study of Local School Units in Ohio," made in 1936 and 1937 in which a separate report on school organization was made for each county in the state, the policy was followed to recommend the continuance of elementary schools in particular where there was any evidence of such a school serving a community center.

A large number of schools in the state are stressing the ideals of the community school; the following are indicated as typical of this movement: (1) Shaker Heights Senior High School, Arthur K. Loomis, superintendent; (2) Hillsboro High School, E. E. Holt, superintendent, and (3) Centralia Rural School, near Chillicothe, George E. Armstrong, superintendent.

The Middle West Reports

I. O. FRISWOLD

Director of Buildings and Business Administration
State Department of Education, Minnesota

TWENTY years ago nearly 22 per cent of all the one room rural schools in the United States were located in the states of Iowa, Minnesota, Nebraska, North Dakota, South Dakota and Wisconsin.

A plausible assumption would be that in this natural habitat of the small rural school there would be a fertile field for the consolidation of smaller units of attendance and administration to form larger school centers. The record, however, reveals that in relation to other states the elimination of the one room school and the increase in consolidations have lagged behind in these middle western states. Ten years ago 25 per cent and, today, more than 28 per cent of the nation's one room school buildings are found in these six states.

In 1917-18, these six states could claim 13 per cent of the nation's consolidated schools. In 1927-28, this percentage was reduced to 9, and today not more than 8½ per cent of the total number of consolidated schools in the United States are found in this region. Not only has school consolidation in this area during the last two decades failed to equal the average for the nation as a whole, but current statistics suggest that the total number of consolidated schools in these middle western states recently has been declining.

Reliable statistics relating to community school consolidations are not available. The term "consolidated school" has many definitions. It may refer to the combination of two or more small one room rural schools to provide the same type of ungraded elementary school instruction previously offered, or it may mean the unification of large areas into administrative units with one or more attendance centers offering greatly enlarged educational, recreational and community programs. Although many consolidated schools in these midwestern states may properly be classed as community schools, obviously many of them do not merit such a designation.

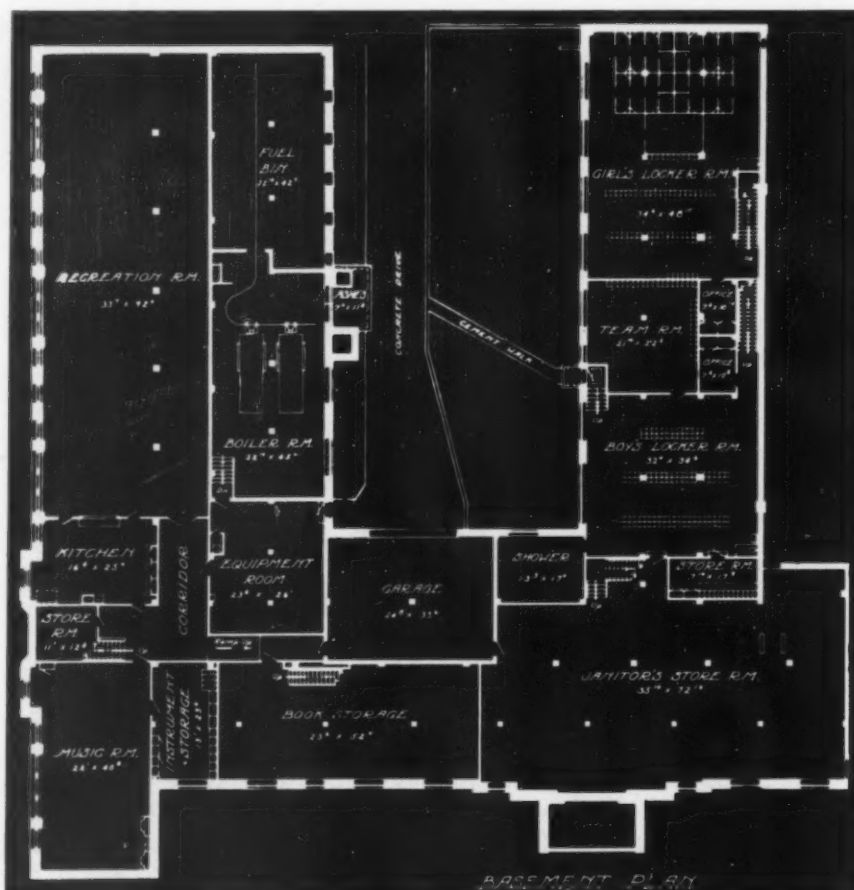
School district consolidation is now virtually at a standstill in the mid-

dle western states. Economic conditions, lack of either mandatory or the proper type of permissive legislation, unfortunate former consolidations, unfavorable systems of state financial support, sparsely populated areas, low assessed valuations, poor roads and the common belief that in the small local school unit one finds the last remaining opportunity to retain local control in public affairs have retarded and will continue to work against school district reorganization.

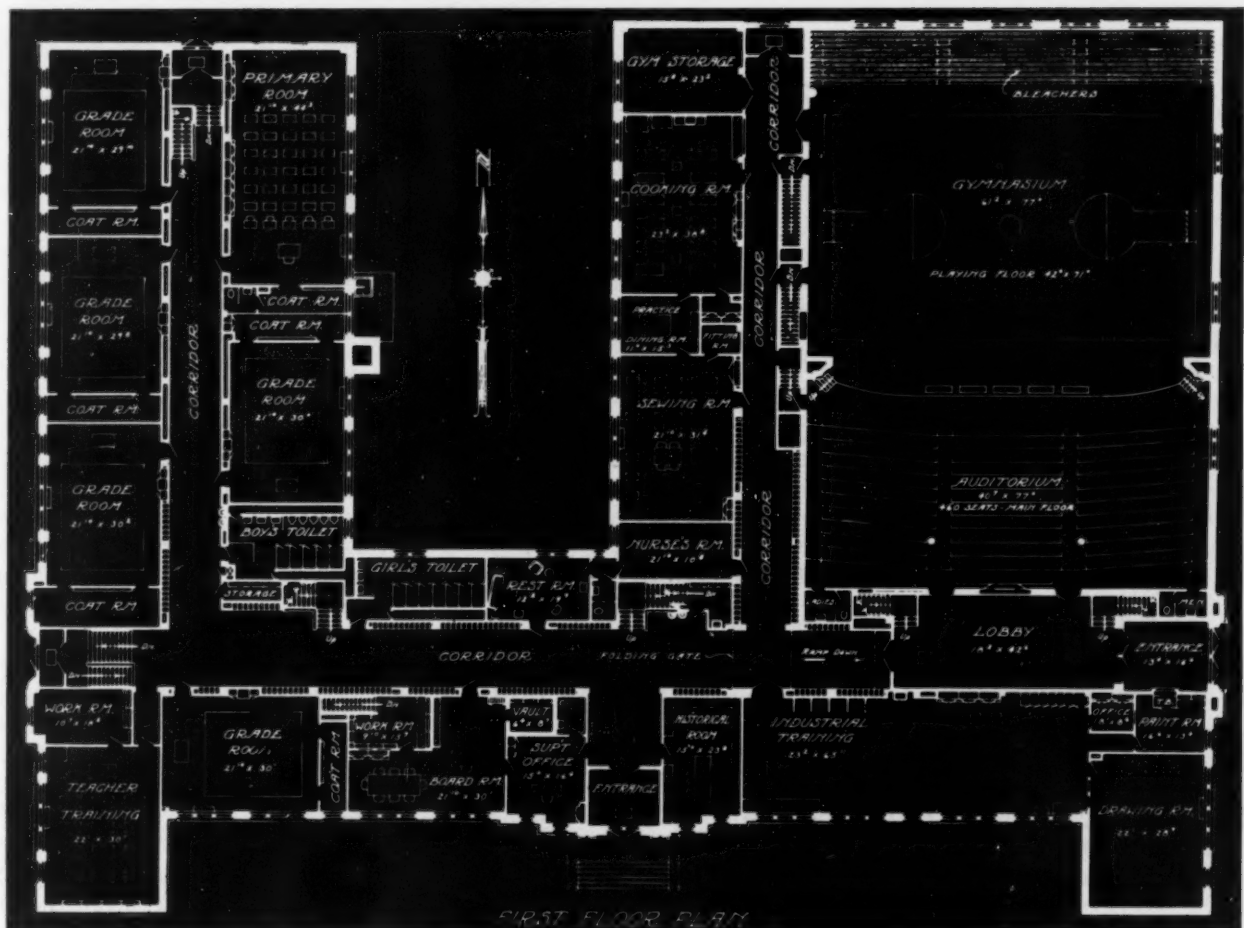
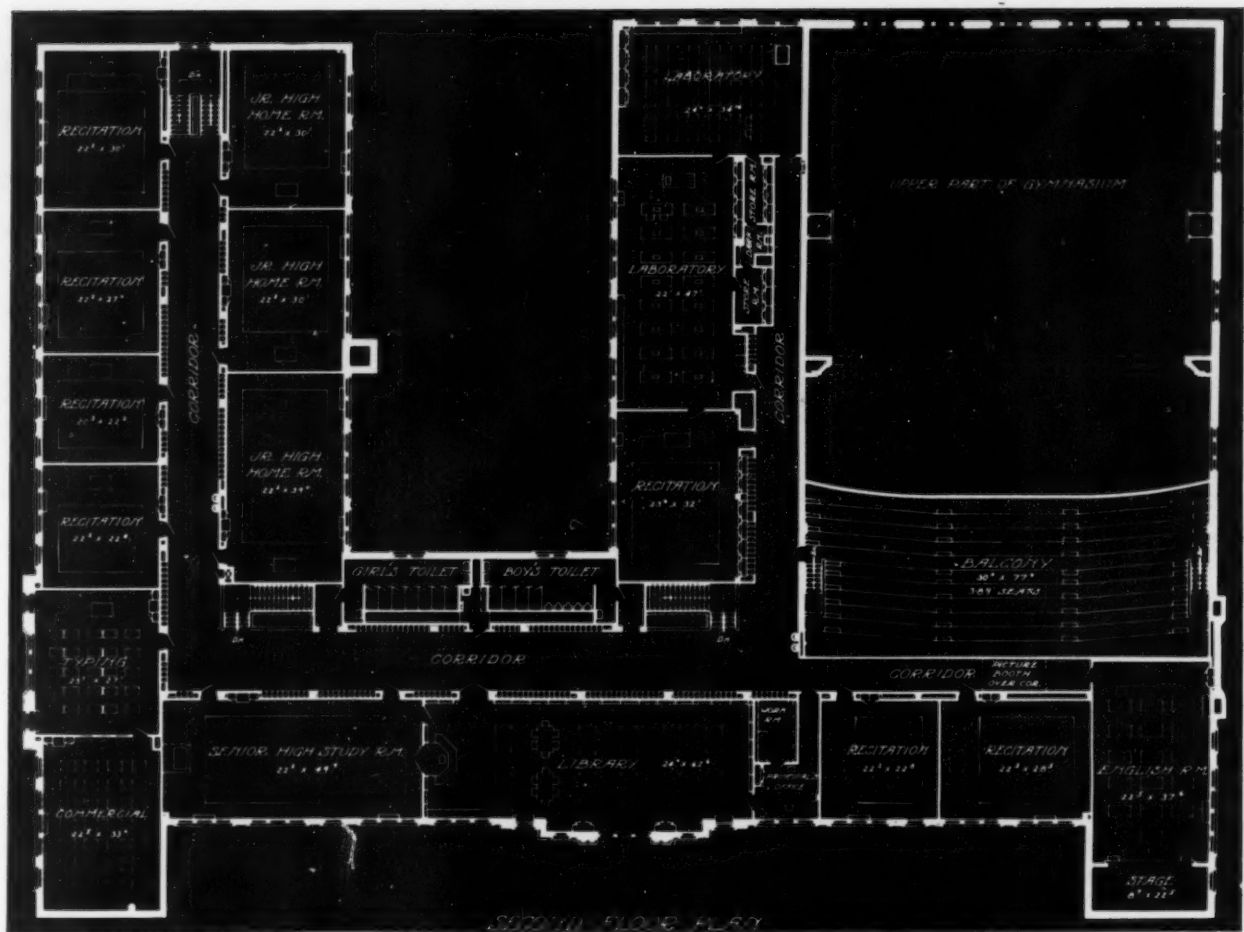
On the other hand, the community school idea is making progress in this area. In Minnesota one observes the development of high school areas, provision for special aid to assist rural school districts in transporting pupils to near-by high schools and the limitation of tax levies on agri-

cultural land in districts maintaining graded elementary or high schools; in Wisconsin, reductions in state aid for schools with a small number of pupils, and in Iowa, the direct elimination of small schools. The practice of small districts which, although they retain their legal identity, close their schools and send their pupils to adjoining or near-by schools, which is much in evidence in Nebraska, suggests that we are evolving in the direction of larger units of school support, administration and attendance.

Because of these trends we can say that, although school district consolidation now lies dormant, indications are that we are moving slowly but inevitably toward the development of community school centers in the various middle western states.



Basement plan, Glencoe School, Mankato, Minn., showing excavated portion.



Pass & Rockey of Mankato designed this school serving a town of 2000 and the surrounding farm area.



Above: The Henderson High School at Henderson, N. C., erected in 1936, is of modern Gothic exterior design.

Speaking for the South

W. F. CREDLE

Director, Schoolhouse Planning
State of North Carolina

NORTH CAROLINA'S first public school law was ratified on Jan. 5, 1839. The act provided that the state should be "divided into districts containing not more than 6 miles square, with a schoolhouse sufficiently large to accommodate 50 scholars located at some suitable place in the district."

Many sections of the state were uninhabited 100 years ago and it was thought that 1250 districts would be approximately the correct number into which to divide the state and to erect schoolhouses of the required size. Each of these districts was to vote \$20, the state was to appropriate \$40 and school was to be in operation for four months out of every year.

The chroniclers of the times remind us that these "common schools," as they were called, lived and discharged their useful mission even through the gloom and trial of conflict and that they survived the terrible shock of cruel war. Just as certain as they survived, they multiplied. By 1902, North Carolina had 8115 miserably poor and indifferent, mostly one teacher schools in the then some 52,000 square miles of area.

Quantitatively, the dream of the founding educational fathers, who contemplated only one teacher schools, had been realized. Qualitatively, it is extremely doubtful that any appreciable progress had been

made during the sixty-year period. The average term was less than five months, salaries were almost unbelievably low and only 60 per cent of the school population was enrolled in schools with but 50 per cent of the enrollment in average daily attendance. There were 1190 log schoolhouses. The total annual school expenditure was a bare million dollars. The value of all school property was slightly more than a million dollars. A high percentage of the population was illiterate.

These were the conditions, such was the setting, when a group of capable and progressive educational leaders in 1900 definitely outlined a program for the improvement of the state's season of schools. Three simple objectives were agreed upon:

1. More money through state and local support for longer terms and increasing salaries.
2. Better trained teachers.
3. Consolidation and, later, transportation.

This was one of the earliest long-range planning programs to be adopted by any authoritative body of school administrators.

While the procedures have varied somewhat in the several states of the South, the aims and attainments have been relatively uniform. The

accomplishments in the program are illustrated and attested by the progress that has been made in North Carolina. In brief, this state is organized as follows.

There are 100 counties, each a school administrative unit. There are 71 city school administrative units. Generally speaking, the latter units are towns or cities with an average daily school attendance of 1000 or more pupils. However, in a few instances, smaller units have been authorized by special legislation.

The school law is so broad and comprehensive that it would be legally possible to reduce the entire state to 171 attendance areas instead of the more than 8000 that were in existence at the beginning of the century. By the same token, the law is so restrictive that the organization of all local units must be approved by a state supervisory board.

To a marked degree the lawmakers of the state have enacted into law the philosophy of large school organization of the educational leaders. Since 1917 there has been a rigid requirement that all schoolhouses must be located in accordance with a "county-wide plan of organization." These plans contemplate only those schools that will have a minimum of one teacher per grade in the

elementary school and at least three teachers in the high school. Exceptions are made only where geographical barriers make large schools impossible.

The measures outlined have been responsible for the virtual elimination of small schools in the state. During the present school year only about 250 white one teacher schools are in operation. Practically all of these are located in 15 of the 100 counties of the state. Within five years there will be less than 100 one teacher white schools in North Carolina and these will be found only in isolated areas where consolidation and transportation are impossible. Transportation is provided in every attendance area in the state.

The school plant facilities in these reorganized community schools compare favorably with those to be found anywhere, except in the cost of construction materials. The probability is remote that the South Atlantic States will ever reach the national average in capital outlay expenditures per child. To a certain extent the mild climate, coupled with an abundance of excellent yet eco-

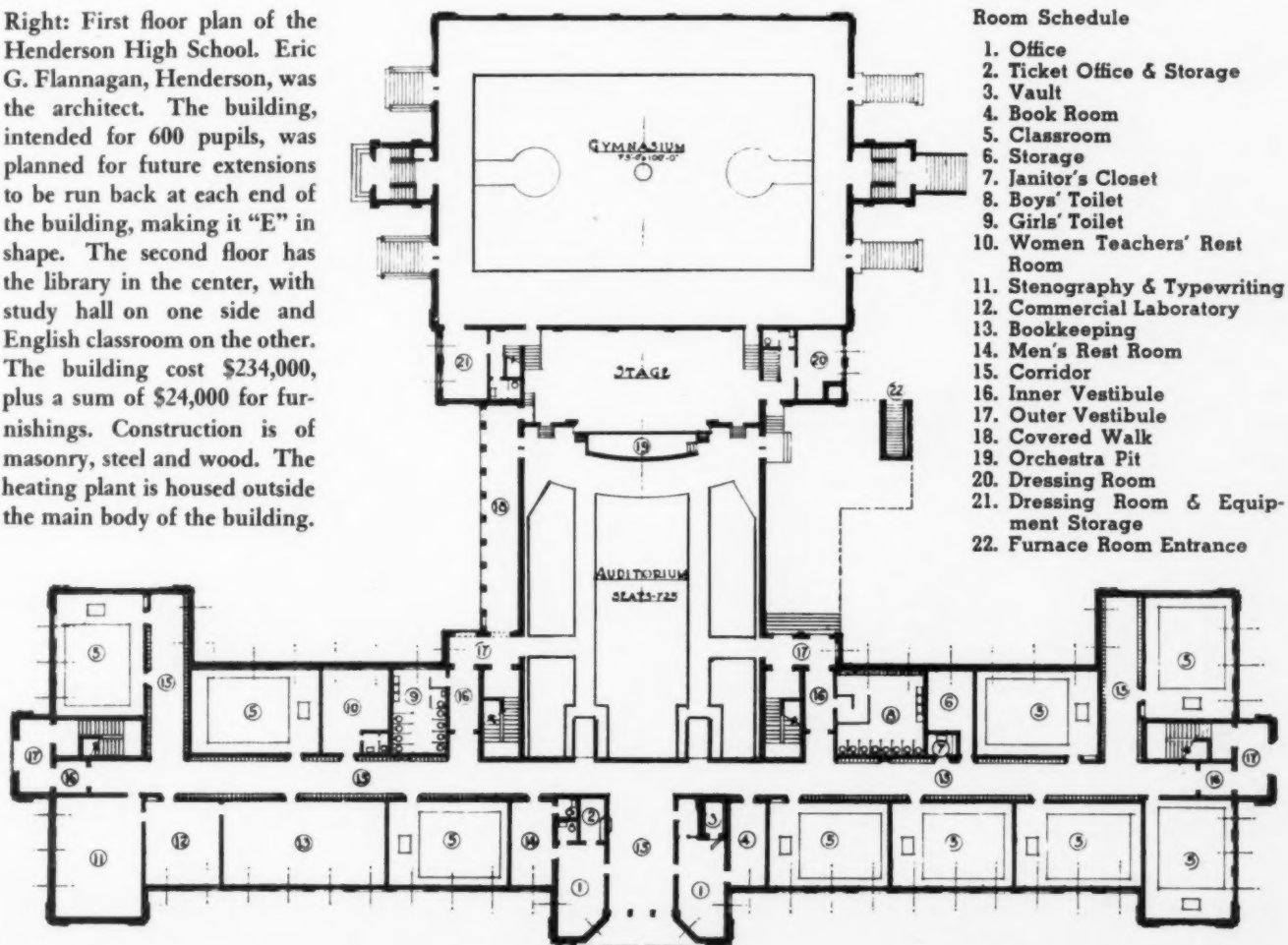


Above: Mabel School, Watauga County, North Carolina, built of native stone.

nomical native building materials, makes it unnecessary that it should. These favorable circumstances make it possible not only to organize large school units but to construct attractive and hygienic buildings and to

transport children to school at a much lower cost than is possible in the progressive sister states where climatic conditions are more severe, with the result that a more expensive type of building is required.

Right: First floor plan of the Henderson High School. Eric G. Flannagan, Henderson, was the architect. The building, intended for 600 pupils, was planned for future extensions to be run back at each end of the building, making it "E" in shape. The second floor has the library in the center, with study hall on one side and English classroom on the other. The building cost \$234,000, plus a sum of \$24,000 for furnishings. Construction is of masonry, steel and wood. The heating plant is housed outside the main body of the building.



In the Gulf States

RAY L. HAMON

Professor of School Administration
George Peabody College for Teachers

WE HAVE too long thought of the public schools as institutions merely for the instruction of children, hoping that by some mystic power the teachers could impart knowledge and appreciations which would prepare the youth of one generation for the unknown problems of a future generation. Three facts have gradually dawned on us: (1) that children are more concerned about problems with which they now are confronted than with the distant future; (2) that adults are confronted with problems of which no one had ever dreamed a generation ago, and (3) that we do not get too old to learn. Hence, the child centered school for the child and the community center for the adult have developed.

In spite of all the lip service to the ideas of adult education and of the school as a community center, public school administrators have been slow really to adapt the schools to community and adult needs. If the schools cannot or will not broaden their programs to include the needs of the community and the adult public, some other agency of government will assume this responsibility, and the schools may be faced with even greater difficulty in obtaining public support. The same teaching force need not teach twelve hours per day, six days a week for twelve months, but the administra-

tive organization can be expanded to include such a program, and the use of the physical plant can be doubled.

In planning new school buildings or in remodeling old ones, the community needs must be kept in mind. The school plant facilities used most by the community outside of regular school hours are the auditorium and gymnasium. It has become standard practice throughout the Gulf region to plan these two units so they may be cut off from the main building. This makes these general facilities available for evening and vacation use without having to supervise the entire building.

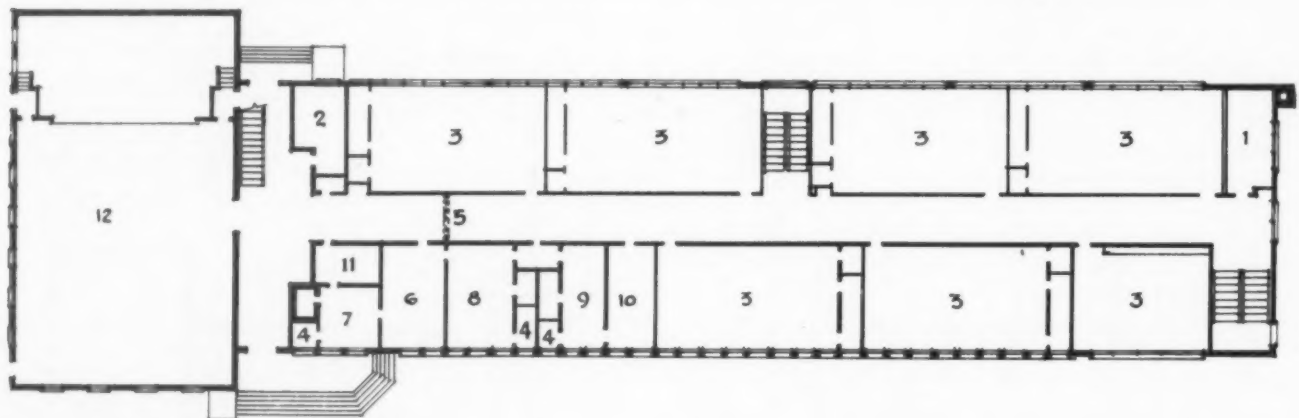
The library is another school plant unit that is growing in popularity as a community facility. In many schools, the library has been located so it may be entered from the street and used as a branch of the public library during the evenings, Saturdays and vacations. These rooms also connect with the buildings so they serve as the regular school libraries. Such a plan requires the cooperation of school and public library authorities in providing service and in selecting books.

The shops and special instruction rooms are being used in some schools for evening and vacation classes in the industrial and the home-making arts. There is an increasing use of the classrooms for adult classes. The

high school buildings lend themselves somewhat better to educational programs for adults, because of the size of the equipment and the varied facilities available. There is no reason, however, why many of the facilities of the elementary schools may not serve the community as well as the school.

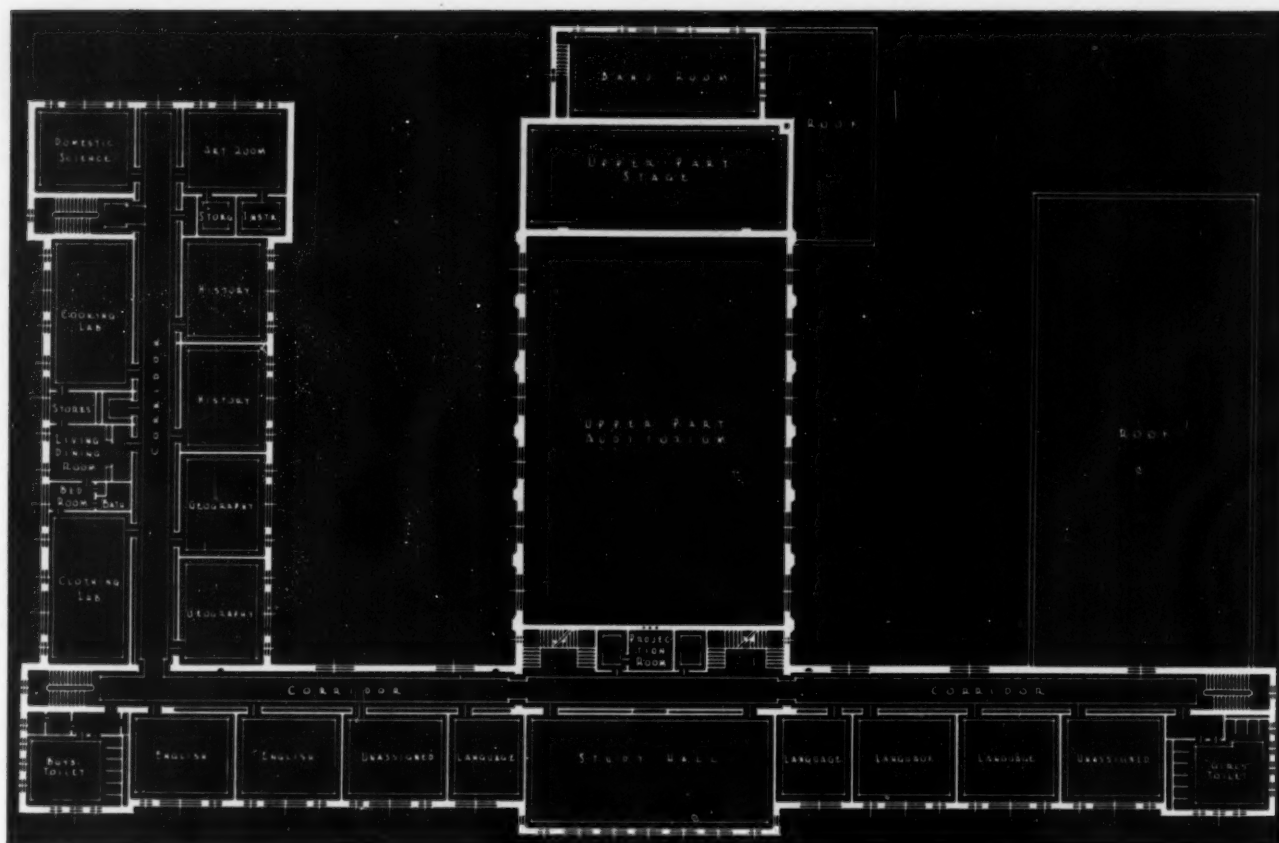
There is a growing tendency to combine the school playgrounds with public recreational parks or to place both of these facilities under joint supervision for both school and out-of-school use. The school gymnasium with its dressing and shower facilities and the assembly room with its audio-visual equipment have great possibilities for community recreation if properly administered.

I know of some schools in this area where school buses are used to transport adults of the community to and from evening functions at the school community center. These administrators are actually commencing to take seriously the idea that the school is the community center. These provisions for community use of the school plant will, of course, cost slightly more than the traditional program. Two factors, however, should be remembered in this connection: the extra cost is for those who bear the expense, and the adult group of the population is increasing year by year in proportion to the child group.



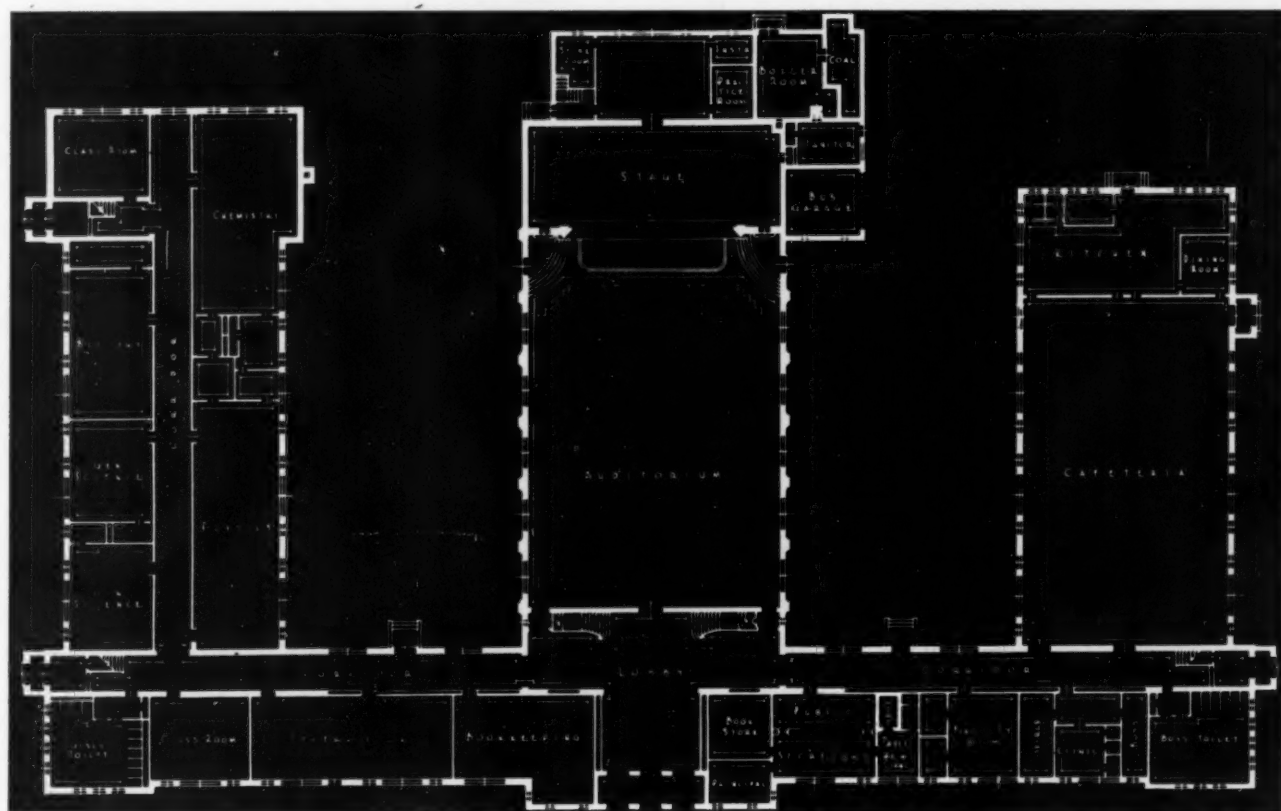
Above: First floor plan, Carter-Lawrence Negro Elementary School, Nashville, Tenn., Emmons H. Woolwine, architect. This plan provides for public and adult use of the building outside of regular school hours by corridor gates on both floors. When the gates are closed the public can have access to the auditorium, library, office and two

toilet rooms, but not to the rest of the building. The flat floor auditorium is equipped with folding chairs. Legend: (1) girls' toilet, (2) boys' toilet, (3) classroom, (4) private toilets, (5) folding gate, (6) ante-room, (7) office, (8) clinic, (9) teachers' rest room, (10) teachers' work room, (11) book store, (12) auditorium.



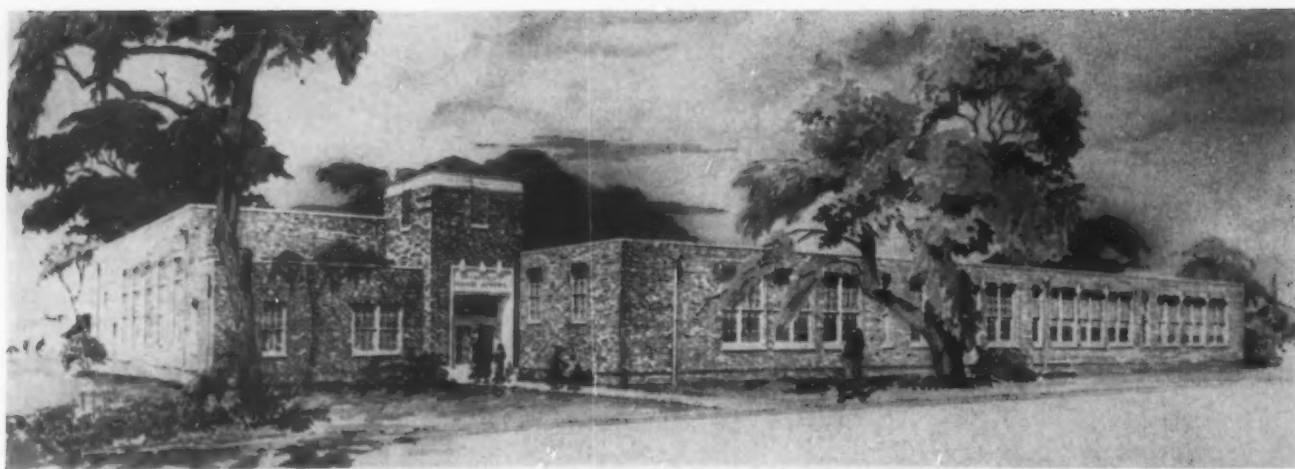
Second floor plan, Leon County High School. This is an "E" shaped building facing east. The northeast wing of the building is one story but was designed and built so that two

stories could be added. The building is of Class A construction and is so located and built that its capacity can be practically doubled without affecting the building's architecture.



First floor plan, Leon County High School, Tallahassee, Fla. M. Leo Elliott, Tampa, Fla., architect. This building was erected under P.W.A. supervision in 1937 at a cost of \$400,000. Located on a 35 acre site, close to the heart of

town, it is the only county senior high school. Four junior high schools act as feeders. The state department of school-house planning, headed by J. L. Graham, cooperated with Principal M. L. Stone in suiting building to curriculum.



District reorganization and consolidation were responsible for new elementary schools like this one at Mooreland, Okla.

Oklahoma Consolidates

IVAN REYNOLDS

Assistant Director, Division of Schoolhouse Planning
Oklahoma Department of Public Instruction

WHEN the constitution for the state of Oklahoma was adopted in 1907, the first legislature made it the duty of the county superintendent to divide the county into a convenient number of school districts. The county superintendent was given the power to change the size and boundaries of school districts by making them conform to existing topographical or physical conditions when the interests of the people required such changes.

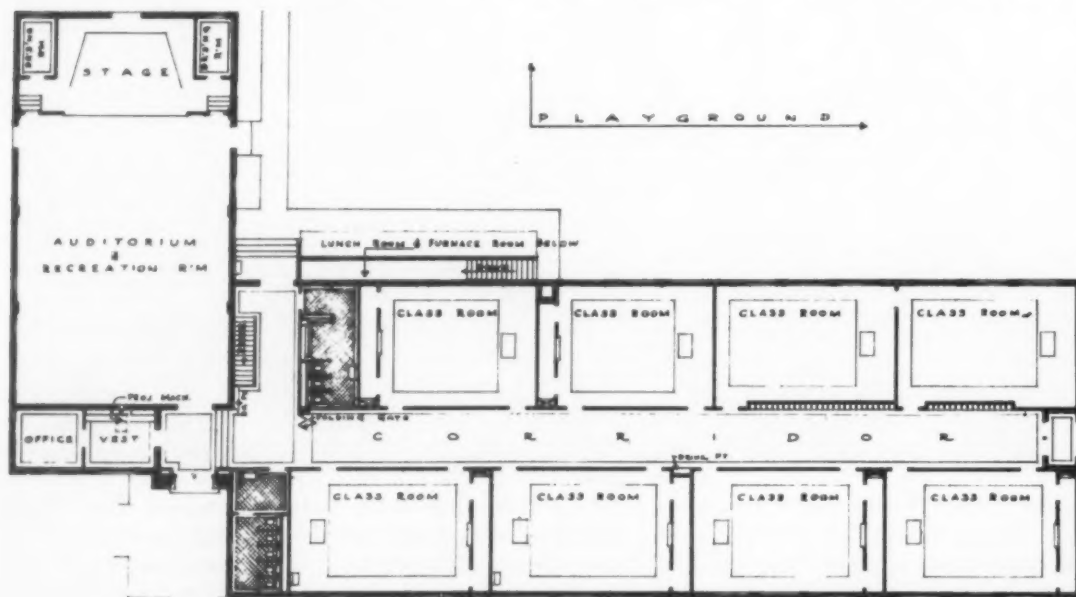
This law had little effect on the size and character of attendance areas and administrative districts which had existed before the time of statehood. Furthermore, in the organization of new attendance areas

and school districts, the county superintendents conformed to the early practice by organizing school districts of 9 square miles in area.

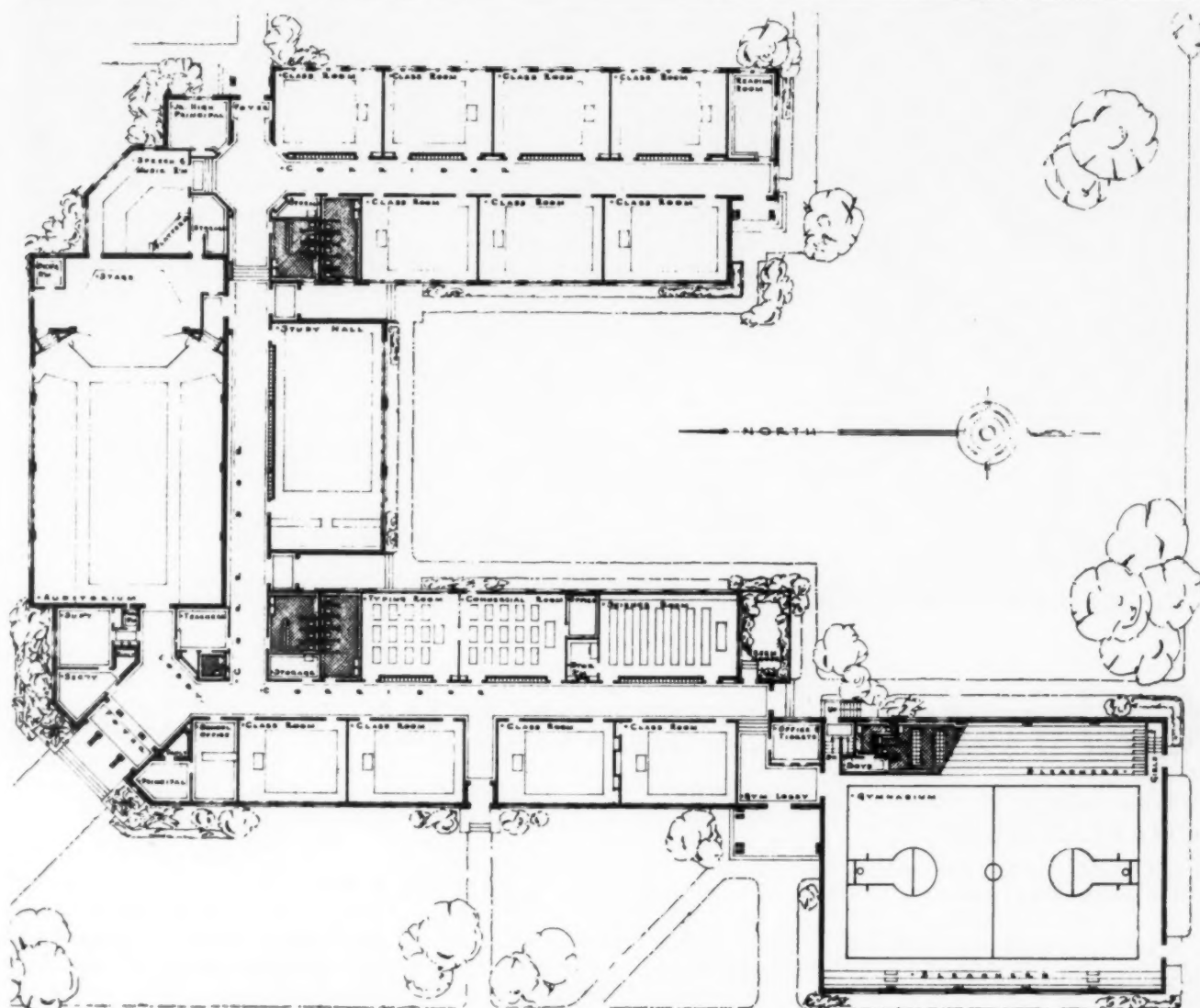
The authority for establishing school districts and changing boundary lines has been transferred by subsequent legislation from the county superintendent to the people. For many years it has been impossible to create a larger attendance area or school district, except by a vote of the electors in the areas affected. The size of the majority of the small attendance areas in

Oklahoma has never been changed since they were originally formed.

The number of one teacher white schools has decreased for the period 1915-35 from 4180 to 2488, or a reduction of 1692 schools. The total number of white elementary schools of all sizes decreased to 4647 in 1935. This represents a reduction of 1246, or 22.9 per cent, in the number of white elementary schools. The majority of these schools merged to form new consolidated and union graded districts. Others became attached to the town and city school districts.



Left: Floor plan of the Mooreland Elementary School. Malcolm Moore of Oklahoma City, Okla., is the architect.



High School for Wetumka, Okla., Malcolm Moore, architect, Oklahoma City.

Economic factors may have had an influence on a number of such changes but generally they were encouraged by an extension of the transportation facilities, a broadening of the educational program and a desire on the part of parents to provide better educational advantages for their children.

This attitude on the part of the people has and will continue to facilitate needed reorganization. The people have come to realize that larger units are better able than the small units to provide adequate educational opportunities.

The total number of white high schools increased from 455 in 1915 to 780 in 1935. This represents an increase of 71 per cent. High schools employing less than two teachers are not accredited by the division of high school inspection in the state department of education. This regulation

has helped to decrease the number of one teacher high schools.

The total average daily attendance increased 110 per cent from 1910 to 1935, while the school population increased but 45 per cent and school enrollment, 59 per cent during the same period.

School districts that otherwise met the legal requirements for furnishing transportation were authorized to send their school trucks outside their own district boundaries for the purpose of transporting transferred pupils in 1933. This law has resulted in increased enrollments in many high school attendance areas in the state.

Many small common school districts have transferred all their pupils to adjoining districts that are willing and able to furnish transportation.

The provision in the present state finance law, which prevents aid from

being extended to units that could be more economically cared for in another district, has caused the transfer of all the children in such districts to neighborhood schools. This provision has had a tendency to encourage the formation of more satisfactory attendance areas, but it must be remembered also that the administrative unit is left intact. These schools realize the advantage of becoming a part of a larger district.

The legal restrictions relative to the voting of bonds for the purpose of constructing buildings and to the financial inability of people to vote such bonds have retarded desired consolidations. The remedy appears to be the removal of the present limitations on the amount of bonds that can be voted or the assumption by the state of the responsibility for aiding in the construction of buildings in reorganized units that meet specific minimum requirements.



California Community Schools

CHARLES BURSCH

Chief, Division of Schoolhouse Planning
State Department of Education, California

ALMOST all new school buildings in California are being designed as community centers as well as for regular school use. Some of the older schools, moreover, are being remodeled and extended to improve their usefulness as community centers.

However, in California there are some conditions of school district organization and state financial aid that operate against the development of real community type school districts. Outside of the largest cities, high school education is provided almost entirely in union high schools governed by union high school district boards of trustees. These union high school districts are made up of from two to 20 or more distinct elementary school districts, each with its own board of trustees and school principal. While this type of high school district organization has resulted in relatively large and well-financed four year high schools, it has created a number of conditions adverse to the development of real community school districts with unified local control of public educa-

tion from the nursery school to adult education.

One of the worst outcomes of this dual local control is the competition between the union high school and the elementary school in the small city or town where the high school is located: competition for public favor and recognition, for bond funds and for a proper share of tax funds for current expenses.

The dual district system has also tended to divide educators more sharply into two camps, elementary and secondary. This division often is a definite barrier to the obtaining of a unified school district. Duplicating expensive facilities, such as assemblies and gymnasiums, is common under dual control.

The union high school district system combined with the archaic method of apportioning state aid for seventh and eighth grade pupils has been effective, with rare exceptions, in denying junior and six year high schools to the pupils of California residing outside the largest cities.

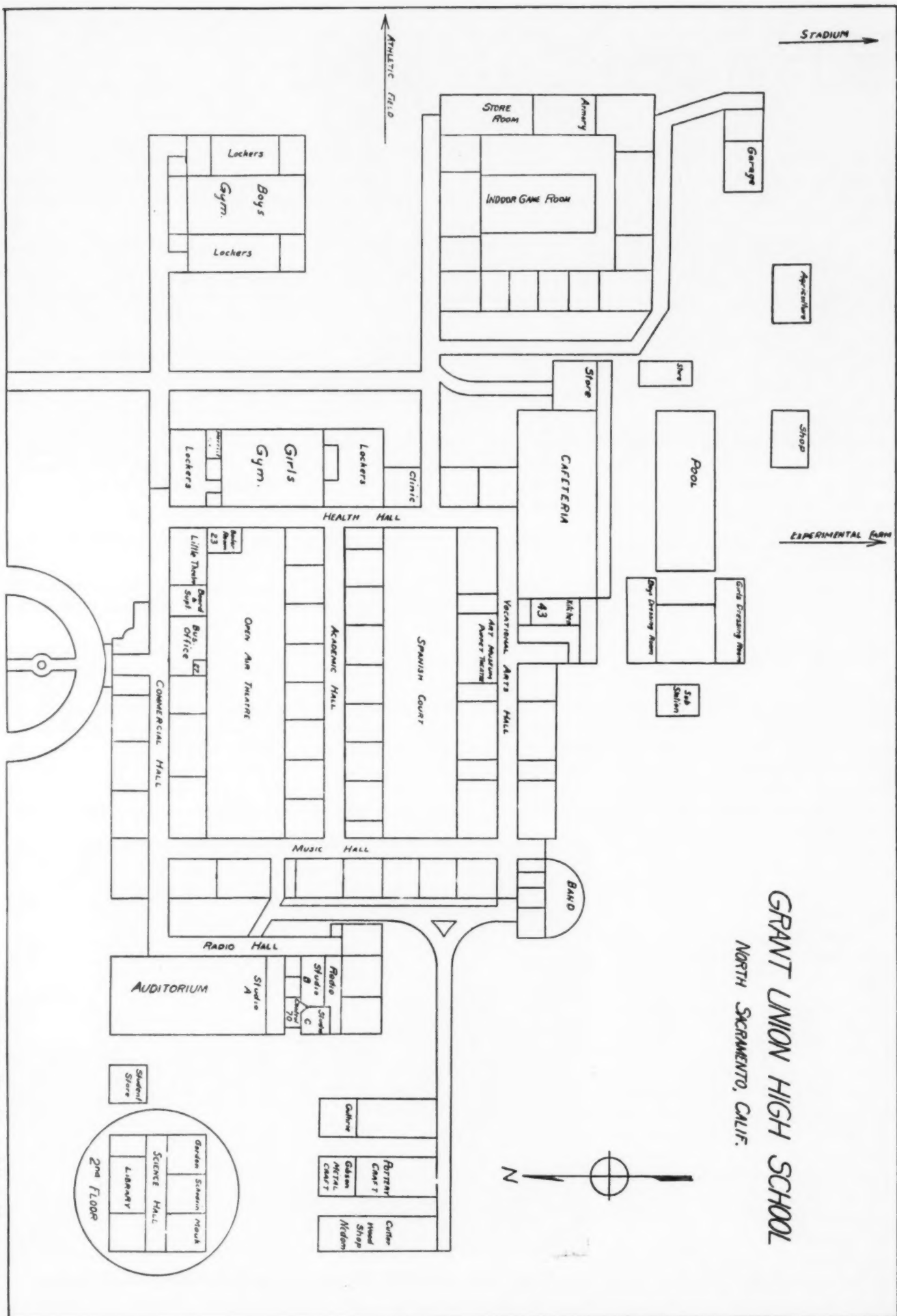
In a few of the union high school districts there has been an attempt

to unify the work of the high school and the local elementary school by interlocking boards of trustees and by the employment of the high school principal to serve also as elementary school principal. While this scheme has resulted in better coordination of educational effort in the one elementary school affected, it has given rise to continuous sniping from the outlying elementary districts on the basis that the "town" children are given extra advantages paid for in part by their contributions.

Under legislation enacted a few years ago a district becomes "unified" automatically when the boundaries of the elementary and high school districts are coterminous. A unified district, of course, has a single board and superintendent for both the elementary and high schools.

To date, only one or two union high school districts have qualified to become unified districts and the prospects for more are few. The difficulty lies in the task of uniting all the elementary districts within the union high school district into a single elementary district as a necessary condition of forming the unified district.

GRANT UNION HIGH SCHOOL NORTH SACRAMENTO, CALIF.



Compare with picture on opposite page.

Harry J. Devine, architect, Sacramento.

It Happened in Utah

MORGAN COUNTY, Utah, began its process of school consolidation early. In 1908 three of the communities, each then supporting a single teacher school and located in the lower end of the county, carried out a system of co-operation by building a two teacher school in a central location. At that time there were 13 independent school districts in the county, each with three trustees. The schools were all one teacher schools except this one.

This simple beginning acted as a leaven that helped effectively to influence public sentiment in favor of the larger school unit. Yet little more progress was made toward eliminating the smaller units until 1920. Since then eight units have been closed and five of these were not closed until 1936. All of those closed in 1936 were either two, three or four teacher schools.

At present 97 per cent of the total pupils of the county are attending school in Morgan City, the county seat, and all grades from one through the high school are accommodated in four major buildings located on one campus and administered as a single unit. This central plant represents a capital investment of approximately \$250,000. There is only one one teacher school remaining in the county. It is 10 miles from the central school.

It took a long time to achieve this result but it came through carefully guided cooperation. In two instances, when schools were closed, the board of education had petitions from the citizens protesting the closing but nothing more serious happened and within two weeks after the central school buses started nothing more was heard. In three instances, and these were at some of the large and well-equipped schools, the board actually received petitions signed by a majority of the citizens asking for permission to send their children to the larger central school.

As the system has evolved the consolidated school has truly become a

CHARLES H. SKIDMORE and J. R. TIPPETTS

State Superintendent of Public Instruction, Utah, and
Superintendent, Morgan County School District, Utah, Respectively

The school districts of Salt Lake City were consolidated in 1890 and of Salt Lake County, in 1905. The legal option to consolidate was soon taken advantage of by Weber, Cache, Box Elder, Morgan, Davis and Sevier counties.

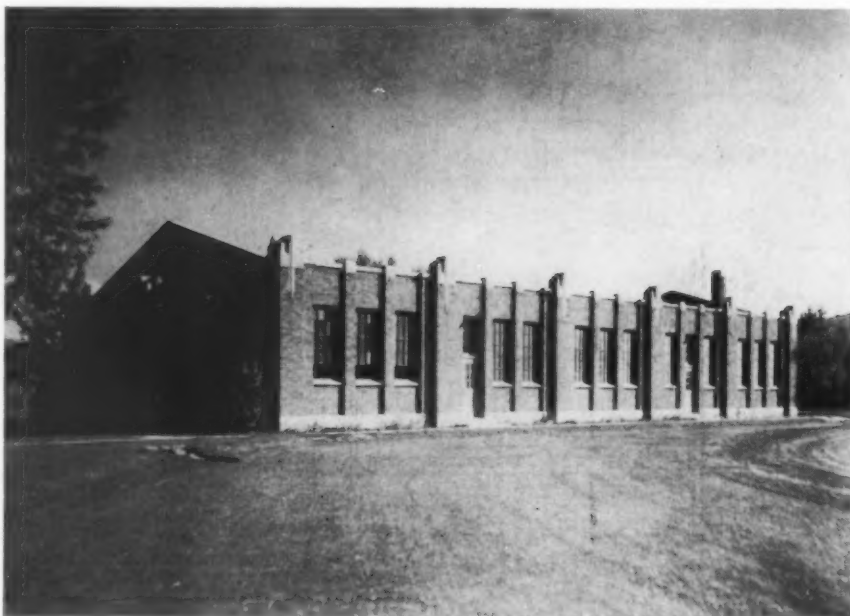
By 1915 the advantages of the larger central units were so evident that all the school districts of Utah were reorganized through state law into only 5 city and 35 rural districts.

More was necessary by way of organization than merely to put a large area under a board of education of five members. Superintendents worked conscientiously for the elimination of small schools. At present there are only 45 one room schools and 56 two room schools in the state.—CHARLES H. SKIDMORE, *Utah State Superintendent of Public Instruction.*

community center. The board, by a liberal policy of administration, has extended the activities of the school into many unusual educational fields. For instance, for the last ten years a school for adults has been set up in which school buses bring in, once each week free of charge, the citizens from outlying communities to hear and to take part in various educational forums and lectures, one of which for the last two years has em-

braced the Federal Education Forum conducted by the bureau of education.

The Smith-Hughes teacher of the high school, in addition to his duties as an instructor in agriculture, has promoted an effective home beautification project in which adults cooperate with children in planting shrubs and flowers. Out of this has recently grown a Morgan County Garden Club with the single purpose



Above: Shop unit of the Morgan County High School, erected in 1936.

Right: High school gymnasium and science building, erected in 1924, is one of four major buildings on one campus. They serve 97 per cent of the total school population of Morgan County.

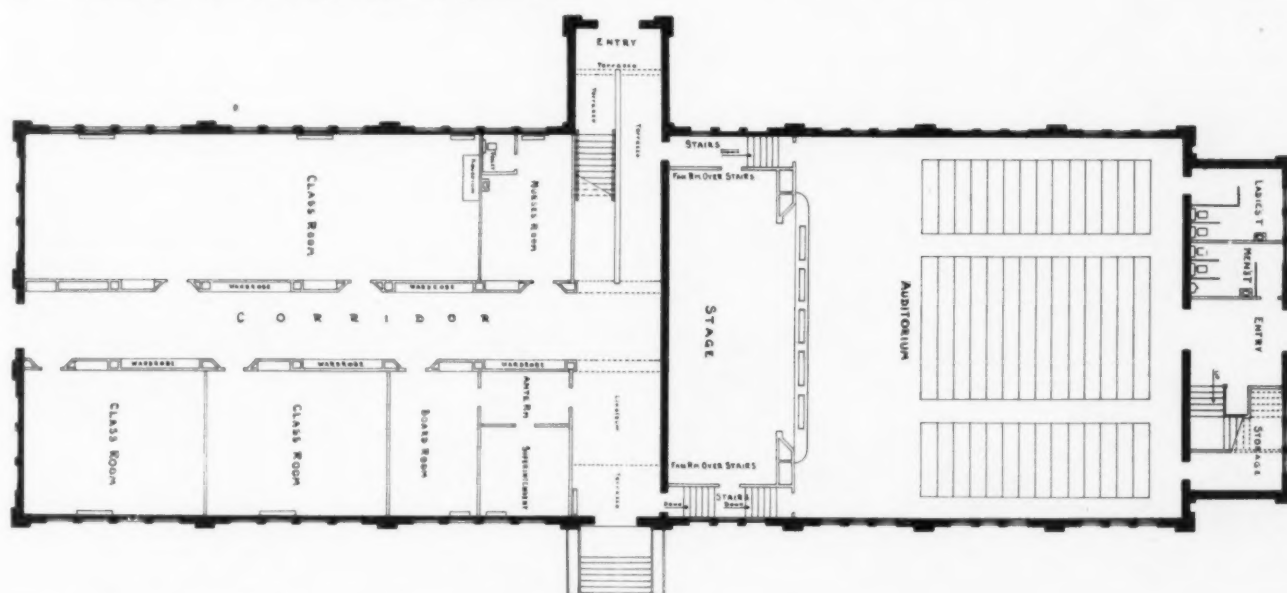


of promoting beautiful homes and grounds among the rural home owners in cooperation with the school program. It is an active organization.

In a similar way an Art Guild has been organized by the art department, consisting of adult members and leading citizens. This organiza-



Second floor plan of the Morgan County grade school.



First floor plan, Morgan County grade school building. Scott and Welch, architects.



One of the school buildings that was closed as a result of consolidation.

tion, though only three years old, has now purchased more than \$1000 worth of fine paintings for the school buildings and is now planning other purchases.

The district has promoted an effective recreational and health program as an adjunct to the regular school course in physical education and it has been made more effective by co-

operation with the county health officers and the school nurse.

All outlying pupils are given an opportunity, through cooperation with a W.P.A. project, of purchasing at a low cost a hot school lunch through the winter months. About 75 per cent of all children in grades 1 to 8 and more than 50 per cent of the high school pupils take advan-

tage of this service. The new central building, finished in 1936, provides built-in equipment and cafeteria space for this service.

These activities are mentioned only to emphasize the fact that consolidation has an effective answer to the contention that it impoverishes the social life of the smaller districts for the benefit of the larger. The reverse is evidently the truth. It furnishes a unit large enough in prestige, equipment and leadership to enrich, enhance and stimulate all the communities large and small. Our people who have now thoroughly tested and tasted the benefits and blessings of the larger unit never express a single desire for the old small school unit with its single teacher and impoverished social and cultural outlook. To them it is the answer to their modern social need.

As to transportation, that feature is taken for granted. Eight large school buses operate with an average hauling capacity of 55 school children of various ages. The longest bus route one way is 15 miles and the shortest is 7 miles. The board of education finds it economical to own and operate its own buses.



New elementary building of the Morgan County consolidated unit. Eight buses travel from 7 to 15 miles daily.

Progress in the Northwest

C. E. ROBERTS, D. A. EMERSON and J. W. McPHERSON

Idaho, Oregon and Washington State Departments of Education, Respectively

IDAHO is consolidation conscious because of influences which have been operative during the past several years. First, the state school survey, a complete study of school organization and support, sponsored by the state department of education and reported by W.P.A., was completed a year ago after a period of two and one half years. It suggests possible consolidations in every county. Second, improved roads have brought many communities closer together. Third, educational forces have included the advantages of reorganization in their plan of promoting a greater measure of state support of the minimum program or equalization law passed in 1933.

Reorganization progress has been slow but steady. One hundred and thirty-one districts were eliminated between 1928 and 1938 and during the last two years many consolidations have been reported. Last year 254 districts were combined into 93 temporary combinations. The temporary combination is an arrangement whereby districts may try consolidation without losing their identity. Many of these would become permanent if state and county aid for transportation were made available.

Although the legislature last winter failed to support a consolidation commission, it is now recommended that the state planning board be charged with the responsibility for working out administrative and consolidation areas which might then be legalized by the legislature. Districts would be permitted to vote on the question of coming into the proposed areas. A premium feature, if they did come in, would be state and county aid for transportation. A penalty feature, if they remained out, would be no transportation aid and reduction in state and county support.

Oregon seems to be on its way in the reorganization of school districts. The legislature last winter passed a

law, the essential features of which are:

1. The state board of education may act as a state reorganization commission with power to appoint such employes and assistants as it may deem necessary. The state commission has power to approve, reject, modify and order adoption of plans submitted to it by the county planning committees.

2. A county reorganization committee was appointed in every county except those operating under the county unit plan. The committees are composed of the county school superintendent as chairman, the county judge, the chairman of the nonhigh school district board, the county assessor and three members of the district boards of education

effort are considered of primary concern.

It is believed that consolidation is on the decline in the state of Washington. The last legislature did not look with favor on the financing of a reorganization commission which had been appointed on recommendation of the governor and the state planning council and, thus, from a state standpoint, consolidation is temporarily, at least, abandoned.

Approximately 50 consolidations of schools have been effected during the last two and one half years. Some of these have been satisfactory but a few have been unsatisfactory. Complaints have arisen from some districts where small children have been transported great distances and from other undesirable features which are

Idaho is consolidation conscious, Oregon is on its way toward the reorganization of school districts and, in the state of Washington, consolidation is on the decline since the last legislature did not favor financing the recommended reorganization commission

within the county chosen by the designated members.

3. Reorganization orders of the state commission become effective for the fiscal year 1941-42, but districts may, by petition, vote not to become part of the proposed administrative area.

4. Transportation may be provided in reorganized districts according to present laws, although trustees are given somewhat greater powers in the newly organized districts.

In the statement of practical policy issued by the state commission, the convenience of children, economies of transportation and administration, use of available buildings, disparities in valuation per pupil and preservation of local interest, initiative and

unavoidable in transportation routes.

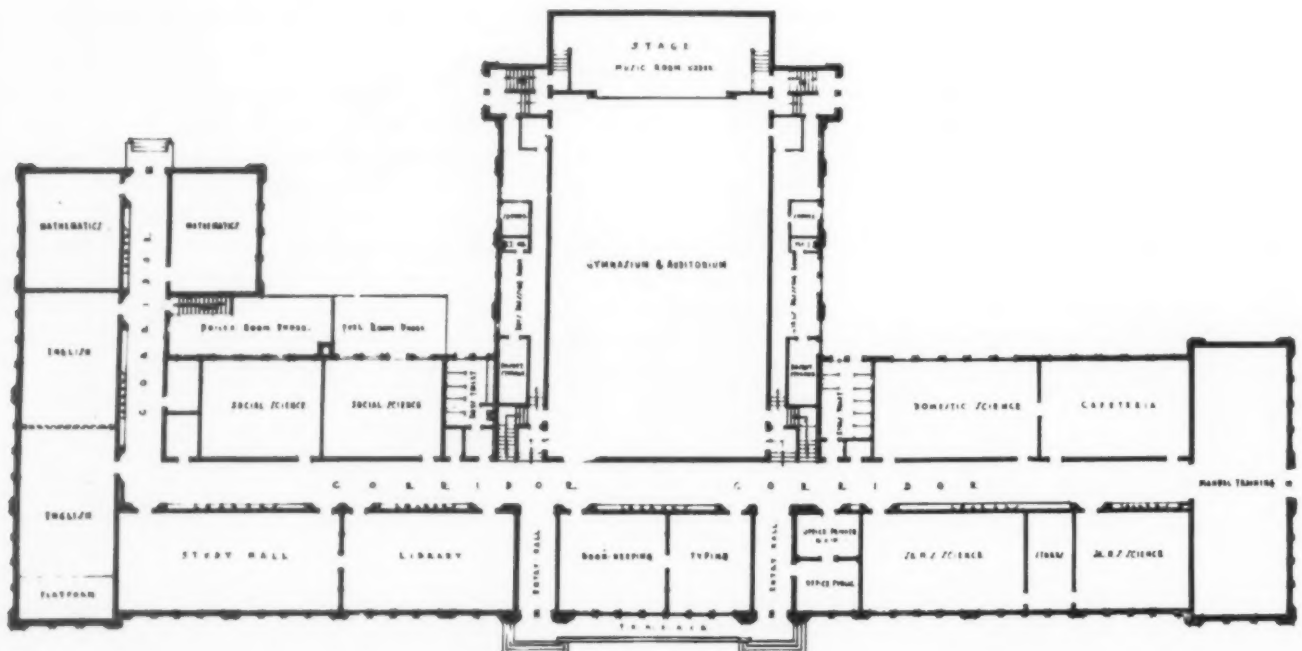
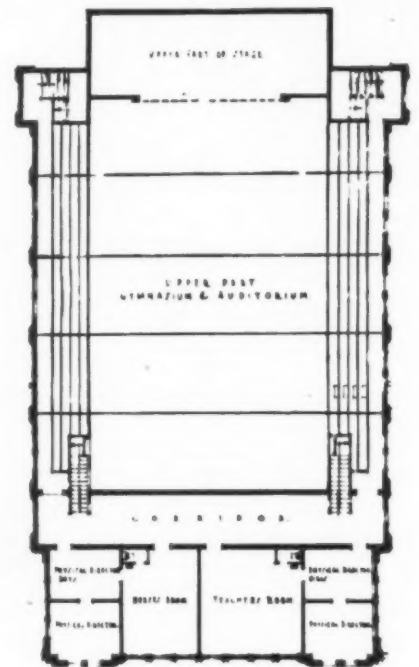
It has been the policy of the state department of education to encourage consolidation of schools wherever it has seemed economically and educationally sound, but always by the consent of the patrons of the districts concerned. Where consolidations have been made, the state has assisted with building problems and with costs by state grant.

The state department takes the position, however, that the schools belong to the people and is sympathetic with the desire of local districts to maintain their identity, except in poorly financed districts, where consolidation is about the only way good schools can be made available to the children of such localities.



A Consolidation Project in Idaho

ABOVE: Architect's drawing of the combined junior and senior high school building, Salmon, Idaho. Tourtellotte and Hummel of Boise, are the architects. The building is being constructed as a W.P.A. project at a cost of approximately \$95,000, exclusive of W.P.A. labor and material. The exterior walls are to be of concrete, cast in forms which are lined with fir plywood to give a smooth exterior surface. The interior construction is to be of wood bearing partitions, wood floor and ceiling joists and rafters. Plastering and wood studding walls are to be done on center plaster lath. The ceilings throughout the rooms and corridors are to be of bevel lap tile insulating board. All wiring will be in metal conduits. There is to be steam heating, with convactor radiators, temperature control and a stoker fired boiler. Finished floors will be of factory grade maple. Blackboards will be slating on smooth plaster. BELOW: First floor plan of the building. RIGHT: The second floor plan, which is directly above the auditorium wing.



Schools and Scapegoats

DAVID D. HENRY

Executive Vice President
Wayne University

LOOKING for scapegoats is a favorite human pastime. To seek explanations of our predicaments in factors beyond our immediate control is a twentieth century refinement of an elemental urge toward self-defense. To blame another for our trouble helps temporarily to sustain our morale. In our rational moments, however, we know that this escape mechanism is no true self-defense. Objective analysis is the first step in problem solving.

One of the scapegoats of the moment in the realm of public affairs is public education.

Despondent Jeremiahs bemoan the weaknesses of the school graduates of today.

Reactionaries shout that schools are teaching dangerous doctrines.

Radicals claim the schools are the tool of economic royalists.

Standpatters see a brain truster behind every political and economic shadow.

Tax-conscious vested interests strike out blindly at what they call the "fads and frills of education."

The so-called self-made man who worships his maker is alarmed at the extent of modern public assistance for the underprivileged boy or girl.

Reformers decry the lack of public leadership, a leadership which they feel the schools should have provided.

At the same time that the vocal pessimists claim to trace current social evils to the inadequacy of the schools, more adults than ever before are going to school, seeking education for themselves and their children.

There is no inconsistency in this picture of the pessimism of the school critic and the optimism of the pupil.

Both represent an overwhelming, almost child-like faith in some educational magic that enshrines the diploma as a touchstone of wisdom,

personal efficiency and vocational or professional success.

Democracy cannot succeed without an enlightened citizenry. Popular education is the means chosen for that enlightenment. Naïvely, however, people too often have twisted this doctrine to mean that every enlightened citizen can succeed in a democracy by whatever criterion of success he establishes.

I do not deplore the use of the schools as a scapegoat by the disillusioned, the skeptic, the disappointed, the alarmist, the propagandist for minority interests. Their defeatism is a high compliment to the importance of schools in our scheme of things.

Without depreciating this importance in any degree, for the sake of the children concerned it is time

Are there social delinquents in our schools? Yes, in the degree that exists in the community social pattern.

The childish belief that schools make pupils what they are may be a tribute to our unreasoning faith in education, but it is no compliment to our social intelligence or to our understanding of how our community works.

It ignores the fact that the average child, in his compulsory school years, gets about 10,000 hours of schooling, which is about one tenth of the waking hours of his life up to that time.

During the remainder of his time he is being educated by his parents, his friends, his church, his books, his radio, his moving pictures, his recreation, his organizations, all the contacts with his environment.

If his parents ignore him, if his friends are among the delinquents,

A little weary of hearing the schools blamed for all the ills of this day and generation, Doctor Henry points to other social factors that contribute to the life of the child. Schools cannot perform miracles when only one tenth of the child's waking hours is spent in the classroom

that parents recognize the true values of education for what they are, no more, no less.

In praising or blaming the schools let us recognize that the school population is, so far as community personality or character is concerned, a reflection of the community itself.

Are there radicals among our pupils? Yes, to the degree that there are radicals in our community.

Are there reactionaries among our pupils? Yes, to the degree that there are reactionaries among parents and citizens generally.

Are there pupils who are deficient in mental achievement? Yes, in the degree that the community bred them.

his books among the obscene, his recreation in the questionable hang-out, his general emotional stimulation tawdry, we can expect the schools to work no miracle of achievement with him.

We believe the schools make a contribution to the growth of any individual. But let us not assume that the schools are responsible completely for achievement or for lack of it.

It is high time that we look for the elements that make for delinquency, crooked thinking and maladjustment where they are, in the community as a whole, not in any one part of it.

Home Week Is

W. F. HIMMELREICH



INTEGRATION within the department, the correlation of the work of the departments and the school as a unified whole projecting itself into the community may be considered as the three basic principles of a functional school program. The account of the successful conclusion of a home and home improvement project at Guernsey, Wyo., is the result of the application of these principles.

The school had planned for a week's work but the many integrations and correlations made it of such practical import and the opportunities for motivation were so many that it developed into a two months' special activity program. "Our Home Week" became a sixty day week.



The school set itself the task of creating an active interest in the study of the home and what could be done to improve the home and the community in general. The interest was not to be a mere academic study of the subject and confined to the pupils of the schools, but the patrons were to be interested in an active

posters; the writing of poems, short stories and playlets; planning community programs and rallies, and creating an active interest on the part of the town council, the service club, the community church and other civic organizations.

Under the head of the direct solution of the problem were projects,

Upper left: Sixty-eight street signs were made in the shop classes and erected at intersections. **Lower left:** A view of the school's model lawn that set a planting example for community.



campaign for better homes and a cleaner town. The month of March was devoted to preparation and April became the time for the actual completion of the work planned.

At a teachers' meeting the plan was outlined and ways and means were devised to carry this work forward. Class representatives of the older groups formed committees. Two kinds of projects were encouraged: (1) those that would create an interest in the work and (2) those that would be a direct solution to the problem. Under the former would come activities, such as the making of

such as plans for vegetable gardens, flower beds, new lawns or the enlarging of the old ones, interior decoration, the making of curtains and convenient household articles, building bird houses and trellises, painting, cleaning and planting trees, shrubbery and wind breaks. To these, others were added as the campaign advanced.

The superintendent met with the town council to explain the plan and to get its cooperation. They agreed to the school's suggestion that street signs be erected at each street intersection. The town was to furnish the

Sixty Day Week

Superintendent, Guernsey, Wyo.

lumber, posts and paint, while the shop and drawing classes agreed to make, paint and erect the signs.

The mechanical drawing and shop classes cooperated in this project and 68 intersection signs were the pride of the community by the end of the working period allotted to this task. The high school pupil council met

pupil committee called upon patrons who had small children or else no children and delivered a questionnaire, taking time enough at each call to explain the campaign and to urge cooperation.

The questionnaire used in the survey was compiled to fit local problems and community interests. It is,



the school office. A number of returns have been tabulated in the school office and so far the outlook is encouraging. In order that the reports at the end of the campaign may be rather complete, all citizens are urged to send their reports to the office as soon as they have decided upon the improvements that they intend to make.

"The month of March is set aside for preparation and planning of the work to be done. School children are planning to do their part in this work.

"Monday evening, March 29, at 7:30 p.m. there will be a rally in the school gymnasium. A short program of entertainment is planned. Following this there will be reports and dis-



Left: Interest in home improvement extended into the classroom where elementary pupils constructed this model cottage in miniature. Note the electric extension leading into the house.

with the service club for its Friday noon luncheon and gave convincing civic improvement talks. The following week, the school invited the service club, as well as representatives of other organizations, to a Friday luncheon. The school furnished a program, the theme of which was the progress made in the preparatory work of the campaign. Home economics classes prepared the luncheon. A survey was made of the entire school district. The older pupils were given a questionnaire to be taken home and to be filled out in a conference with their parents. A

however, typical enough to be of general interest.

The week following the survey, follow-up material was mimeographed and distributed to all patrons.

Home and Grounds Improvement

"The home and home grounds improvement project as sponsored by the Guernsey schools in cooperation with the town council and other community organizations is getting a good start. Survey blanks have been distributed. Any patrons who have not received copies should report to



Guernsey Home Week

Sponsored by the Guernsey Schools in Cooperation With Community Organizations

Plan now to do all you can to improve your homes and home grounds this spring.

Parents and children should plan this work together.

In the spaces below note the things you intend to do.

Planting

Trees: How many? _____. What kind? _____. Where? _____.

Shrubbery

How much? _____. What kind? _____. Where? _____.

Lawn

Do you intend to make a lawn? _____. Enlarge or improve your present lawn? _____.

Do you plan to build lawn ornaments? _____. Trellises? _____.

Bird houses? _____.

List briefly any other ornaments.

Flowers

Are you planning a flower garden? _____. Are you adding to your lawn roses and flower beds? _____.

Vegetables

Do you expect to have a vegetable garden? _____. (A well-kept vegetable garden is both a pleasure and a profit.)

Building and Repairing

Will you improve or change your fencing? _____.

Are you planning to make changes in your house? _____.

Remodeling? _____. Papering? _____. Kalsomining? _____.

Painting? _____. Repairing? _____.

Answer foregoing questions and list additional items.

Are you intending to repair, build or improve any other buildings? _____.

If you live on a farm, list improvements on barns, corrals and fencing.

Are you satisfied with the condition of our alleys? _____.

If waste containers suitable for garbage, tin cans and ashes were purchased in a wholesale lot would you be willing to purchase one at cost?

Would it be a good idea for the town council to make provisions to remove the contents of the alley cans as often as is necessary to ensure sanitation and cleanliness? _____.

Would you support the plan? _____.

Have you any suggestions regarding the upkeep of vacant lots, the appearance of unoccupied houses, uncared for by absentee owners?

Plan for this work; begin as soon as convenient and let us bring our results to a climax during Our Home Week. (Date and program to be announced later.)

It is true that our town should make a good appearance for tourists, but have you stopped to think that they are here for a few days, while we live here all the time? Why not enjoy an attractive home town? List any additional improvements or suggestions.

cussions of plans by teachers, pupils and patrons.

"The town council has set aside the week of April 5 to 12 as Cleanup Week. The week of April 25 to May 1 has been designated by the school as Home Week.

"All who have plans completed are urged to begin work as soon as weather conditions permit. Clean up, paint, repair, remodel, build. Plan to

plant trees, shrubbery, flowers. Have a vegetable garden.

"In short, let us do all we can to make our town have the appearance of cleanliness and prosperity—a place where tourists will want to stop.

"Cooperation, community interest and civic pride will bring this project to a successful finish."

Suitable posters were put up from time to time and the preparatory cli-

max was reached when 300 citizens attended a civic improvement rally. Teachers, pupils and patrons led in discussions and reports. Teachers told how class projects correlated with the program. Pupils produced original playlets and panel discussions. Several reels of moving pictures pertaining to home and garden were shown. The band gave a concert and the rally showed all the enthusiasm of a political campaign.

The material results are partly shown by the compiled returns of the survey.

Report on Home Week Survey

- 683 trees were planted.
- 100 shrubs were planted.
- 17 lawns were planted and improved.
- 34 homes made flower gardens.
- 34 families planted vegetable gardens.
- 12 families built new buildings, such as barns and garages.
- 29 families added to home redecoration and cleaning.
- 28 families supported the town council in its cleaning plan.
- 13 families made ornaments for lawns, such as bird houses and trellises.
- 16 families built new fences or improved them.

The most surprising results were those from the many pupil activities, from the building and furnishing of a model house, to the making of bird houses, trellises, street signs, corner what-nots, magazine racks, draperies and curtains in the shop and home economics classes. In addition, there were the original plays, poems, booklets and posters in English and drawing classes and studies of fire, health, personal insurance, home insurance.

This project, completed almost a year ago, is still discussed. Certain improvements still being made in the community are a continuation of the interest created. While there is much to be done to complete the job of awakening civic pride, we feel that with the coming of spring the school will find new devices to re-create interest in the problem and more citizens will fall in line to improve their property and take an active interest in their community's progress.

In the words of the campaign slogan, "Cooperation, community interest and civic pride will bring the project to a successful finish."

Democratic Principles Affecting Education

HARRY L. STEARNS

Superintendent, Woodbury, N. J.

TWO principles have fullest import to the issues and functions of secondary education: (1) the relationship of popular will to leadership in determining the course which organized society shall take, and (2) the importance of popular education in democratic government.

Before approaching either of these matters it is essential to state, without complete elaboration, three rather naïve observations about democracy in order that the discussion may rest upon a common understanding of what appears to be the basic democratic theory.

Basic Democratic Theory

The first is a repetition of the trite observation that all governments derive their just powers from the consent of the governed. This is not just the cornerstone of democracy; it is the basic axiom of all government among men. There is no divine right of kings. Neither is there any divine commission upon dictators, monarchs, cabinets, parliaments, legislatures or upon any temporal body authorizing them to direct the affairs of their fellow men. The only divine commission is that men shall govern themselves; and when, for the sake of order and efficiency, governmental regimes are established, it is essential to their stability that the consent to govern be drawn from the people. In order to understand the universality of this principle, the second observation must follow.

While all governments must rest on popular consent, recognition must be made of the fact that this consent is not always drawn from the masses in the same way. Indeed in some regimes it is induced by force and fear. In others it is manipulated by propaganda. Others use benevolence and governmental largess as a means of obtaining consent from a satisfied people. A con-

stitution is a remote delegation of authority and, when fully accepted, ensures stability against whimsical change with rapidly shifting currents of public opinion. The second observation, then, is a recognition of the variability among nations of the manner in which consent to govern is obtained from the people.

The third observation is an enunciation of a simple basic principle. If we accept the thesis that all government must rest upon the consent of the governed and follow this with the recognition that such popular consent is derived in varying ways, then we may say that the full realization of the democratic ideal is in direct proportion to the freedom with which consent flows from the populace to the governing regime. This leads to a definition of the democratic ideal as that state in which popular consent flows direct and untrammelled to the seat of government. To those who believe that, because of human frailty, the ideal can never be fully realized the definition at least becomes a basis for comparison: that that government is most democratic in which there is the least obstruction and false inducement in the free expression of the popular will.

Democracy Affects Education

It is believed that this freedom of expression and flow of the popular will is the basic principle of democracy. Upon it can be built a complete philosophy of government with adequate consideration of such matters as liberty, equality, individual rights, social exigencies and the like.

The concern of this discussion is with two phases of the democratic philosophy that affect education: (1) the relation of intelligent leadership

to the masses in the direction of human affairs, and (2) the rôle of popular education in the realization of the democratic ideal.

The problem of intellectual leadership and of mass opinion is an ageless philosophical conflict. Plato's republic is commonly recognized as a proposal for an intellectual aristocracy with resultant regimentation of all classes on the basis of native and acquired intellectual endowment and ability. The writings of Thomas Jefferson indicate that, while he was a great champion of the masses, he looked to an enlightened leadership to direct their course. There have been opposing theories which hold that political power in the hands of the intellectually superior will be administered with as great disregard for human rights as in the case of economic or military oligarchies.

Middle of the Road

A middle of the road philosophy is reconcilable to the basic doctrine of democracy. There must be a thorough blending of the results of research with mass thinking on the level of popular understanding. Without this general infusion of common understanding, the result of the intellectual superiority of a few individuals can only result in an intellectual oligarchy on one side and a mob on the other, with the illiteracy of the mob eventually superseding to the detriment of the state. According to this reasoning, the practical politician, if he has an appreciation of the results of research, is of more benefit to society through his understanding of and adjustment to mass opinion than is the cloistered intellectual who fails to understand that the discovery of truth does not bring it to fruition.

One may conceive of a governmental regime in which the directive force is vested in a council of learned men. There are indeed approaches to this fact among the governments of the earth. But as soon as such an oligarchy assumes the power to carry out its plans there is a violation of the democratic principle that power to govern must flow freely from the people. One cannot deny that the democratic method of waiting for the formation of popular consent is often the least efficient method of obtaining immediate objectives. Opponents of the democratic ideal turn to the faster method of obtaining public consent through force, propaganda or governmental largess.

Democracy Often Inefficient

One could more readily deny the democratic ideal in favor of the efficiency of such an oligarchy if there were definite assurance that any group of individuals could, through the power of intellect, divine the proper course of human affairs. With due respect to the magnificent contributions of human research it cannot be said, even in the field of physical science, much less the field of social science, that man has discovered ultimate truth.

Until human ingenuity is more nearly able to discover such ultimate truth it is better that the directive power of temporal events rest on the broad base of popular will rather than lodge in a few incompetent though highly intelligent individuals. This is the justification of democracy.

To those who accept this view a further refinement of some of the issues of secondary education seems essential. There can be no quarrel with the resolution that education is for the benefit of society and not the individual.¹ This has been accepted in American political philosophy during the past century in which popular education has become an approximate reality. But in the treatment of the issue too much emphasis is given to the kind of society that is to result from educational service. That the world may become

a "better place in which to live and in which to make a living" will appear to many as a laudable aim. But the final realization of such a goal will depend chiefly upon the acceptance of this objective by the masses and not by the general agreement of a few philosophers of education.

A demand that schools assume the task of forming attitudes and ideals goes so far as to imply that the exact attitudes and ideals shall be defined by an intellectual oligarchy.² This is little more than twentieth century witch doctoring. No group of educational philosophers is going to tell the American people the attitudes and ideals that shall be formed in their public schools. Attitudes and ideals will continue to be formed in public secondary schools as they have been formed in the past, but the choice of those ideals will be the result of discussion by educational leaders, religious leaders, economists, scientists, laborers, professional people and others from all walks of life. Out of such stuff is the popular will formed and the people themselves will tell the schools what to teach. It has been so since the first public school. To be different is not democracy.

Seek to Pattern Society

The same reasoning may be applied to another issue³ where the committee on orientation was unable to agree as to whether the schools should seek to reconstruct society. The stumbling block in this issue was the effort to say not only that the schools should seek to reconstruct society but also that they should seek a certain pattern of society.

There can be no doubt that society will be reconstructed. Society has changed much in the last half century. None will venture to claim that the ultimate has been reached and that the next half century will not see a drastic change. In this reconstruction the public schools will play a great part by giving to each succeeding generation of youth the breadth of vision, the tools of thinking and of research, the mass enlightenment, the racial heritage of ideals by which it is fervently hoped

the technic of mass psychology may be improved. But, be forewarned that as long as democracy exists, no intellectual oligarchy is ever going effectually to dictate the course that such reconstruction must take. Such direction can come from only one source, the pressure of public opinion, which is the source of all temporal power.

At this point easy transition can be made to the final part of this discussion which has to do with the function of public education in a democracy. In issue 3 it is correctly stated that education must serve the state and not the individual. However, this important principle was not discovered so recently as 1930 when Professor Briggs published "The Great Investment."⁴

Education Is Essential

Washington, Jefferson and other early political leaders expressed a belief in a wide diffusion of education as an essential to democratic government. During the struggle to establish and develop a system of common education supported by taxation it was necessary to find support in the courts for such expenditure of public funds. In each of the many court opinions upholding free common education the decision has rested upon the broad philosophy that education of the masses is essential where the sovereignty rests in the common people.

"If it is essentially a prerogative of sovereignty to raise troops in time of war, it is equally so to prepare each generation of youth to discharge the duties of citizenship in time of peace and war. Upon the preparation of the younger generations for civic duties depends the perpetuity of this government."⁵

"Without intelligence, properly cultivated and directed, good government would be almost impossible, especially where the particular form of state policy depends so largely upon the will of the people as in a representative democracy."⁶

"Free schooling furnished by the state is not so much a right granted to the pupils as a duty imposed upon

¹Committee on Orientation of Secondary Education, *Issues of Secondary Education*, pp. 129-156.

²*Ibid.*, pp. 292-311.

³*Ibid.*, p. 311.

⁴Harvard University Press, Cambridge, 1930.

⁵*City of Louisville v. Commonwealth*, 121 S.W. 411, 1909.

⁶*Collic v. Commissioners*, 145 N.C. 170, 1907.

them for the public good. . . . While most people regard the schools as the means of great personal advantage to the pupils, the fact is too often overlooked that they are governmental means of protecting the state from the consequences of an ignorant and incompetent citizenship."⁷

It is upon this doctrine of the welfare of the state that legislatures may tax a person's wealth for the support of schools, may encroach upon his individual right to control his child by forcing that child to attend school and may, through activities of the school, trample upon the private affairs of a man's business.

But nowhere in this deeply rooted political philosophy of education has the theory ever been supported that the training of the youth should be confined to any particular brand of schooling, except where direction comes from the constituted representatives of the people. A man is forced by attendance laws to send his child to school, but he may choose the public school, a parochial school or a private school to suit his fancy. Upon this broad scope of diversified training among the individual units of society depends the broadening of the horizon of popular sovereignty.

When education is narrowed by confinement to the concepts demanded by pressure groups working for selfish ends or by philosophers seeking Utopia, violence is done to the democratic ideal.

Let the direction of temporal affairs come unobstructed from the people; give the masses breadth of vision through a free diversified system of universal education. This is the formula by which the democratic ideal seeks to find a happier, more abundant way of life among men.

The work of the committee on orientation of secondary education furnishes an excellent example of the workings of democracy. Two publications resulted from the painstaking thought of trained leaders. These bulletins orientate secondary education in terms of philosophical ideals. It is not to be expected that the form which secondary education will take will coincide with these ideals. Rather will secondary education become what the people, considering

all factors of modern life, want it to become. But the work of this committee has stimulated wide thought, written and oral discussion and painstaking experimentation. By these means a wide diffusion of the

import of these ideals must take place among the populace. The ultimate verdict of the popular will is bound to be affected. This is the highest service that intelligent leadership can perform in a democracy.

Basketball Ethics for Coaches

THE coaching ethics committee of the National Association of Basketball Coaches has recommended the following 10 point program of ethics for basketball coaches:

1. Instruct players according to the letter and spirit of the rules.

2. Insist that players do not question the judgment decisions of a referee. In disputes covering misinterpretation of rules have your captain call time out and discuss in a gentlemanly manner with the referee the situation insofar as the rules cover it.

3. Treat the visiting team coach with the same friendly attitude that you would hope to receive when your team plays on an opponent's court.

4. Obtain honest and capable officials, preferably members of the National Association of Approved Basketball Officials. Do not attempt to intimidate them or talk to them prior to the contest regarding the faults of your opponents. It is advisable to stay away from the officials before the game and between the halves.

5. The coaching ethics committee of the National Association of Basketball Coaches intends to make a national drive to improve spectator sportsmanship. From the reports of our predecessors on this committee we find that the attitude of the coach on the bench either encourages good spectator and player sportsmanship or throws fuel on the fire.

6. The coach should make efforts prior to the opening of the season to encourage good spectator sportsmanship. This can be accomplished by addressing a school assembly prior to the opening of the basketball schedule. Notices in the school's weekly publication before the season opens is another means. Similar publicity in the local newspapers may help to educate local fans.

7. Instill in players the idea that it is necessary for a boy or young

man frequently to mobilize during the course of a game all the skill, intelligence and courage that he possesses, and that he must do this with a spirit of genuine sportsmanship that will not permit him to stoop to that which is base and mean in order to obtain an advantage over his opponent.

8. A few natural rival basketball games among various high school and university teams are not scheduled because the athletic authorities feel that the conduct of partisan spectators would constitute such a nuisance and possibly such a disturbance that such games are not arranged.

9. Emphasize to players that when any of them descend to unsportsmanlike conduct or action during the course of a basketball game they injure hundreds of persons other than themselves. Each player is a representative of his institution. If he violates the principles of good sportsmanship he brings disgrace upon the institution and the entire student body.

10. Basketball is a sport that was originated in an educational institution. Ever since its beginning the game has been administered principally by basketball authorities associated with educational institutions. The popularity of the game has become so widespread that it now embraces numerous types of leagues. The leaders of these leagues look to the school and college division for the sportsmanship traditions of the game. Let us resolve to set a good example by encouraging good sportsmanship among our players and the other members of the student body. Let us regard it as an obligation to practice the ideal principles of good sportsmanship ourselves.—JOHN J. GALLAGHER, chairman, Coaching Ethics Committee, National Association of Basketball Coaches.

⁷Fogg v. Board of Education, 82 Atl. 173, 1912.

New Sights to See in St. Louis



Dolls dressed in authentic native costumes are distributed to social science classes by Educational Museum. Faces and figures conform to racial types.



The boy at the left is working with true mosaics while his companion plans a design in paper in one of the special art classes for talented young pupils.

MEMBERS of the American Association of School Administrators returning to St. Louis for their second visit in four years will find a number of new developments in the schools.

Five centers for teaching art to elementary school pupils of unusual ability were opened by the board of education last year. Each of the gifted children, selected by teachers and art supervisors for this training, is excused from regular lessons one half day a week to attend the center nearest his school. No set course of study has been made for the new classes and children are allowed to proceed according to their own ability and interests. They work with chalks, tempera paints, water colors and modeling clay; those who show a bent for carving also have been supplied with wood and stone.

Encouragement of the arts is traditional in St. Louis and includes all phases. Last year it resulted in the appearance of high school choruses in two public concerts with the St. Louis Symphony Orchestra. The invitation to sing with the orchestra came only after Conductor Vladimir Golschmann had assured himself that the quality of pupil singing and the works selected for them were entirely worthy of the standards of a great metropolitan symphony orchestra. A reappearance of the high school singers on symphony programs is planned for this season. High school progress in the arts is also marked by the extension of the work of speech arts and stagecraft to come within the range of regular class instruction and the participation of pupils on musical and dramatic radio programs.

The new plan for making religious instruction available to public school pupils has created much national interest. It provides that pupils be excused from regular classwork for not more than two forty-five minute periods each week to receive religious training given at places and by persons selected by their parents. In no case are the

HENRY J. GERLING

Superintendent of Schools, St. Louis

classes held in public school buildings. High school pupils who take the required number of hours of religious instruction under competent teachers are given credit for the work.

In the autumn of 1938, two junior colleges, one for white students and one for Negroes, were begun in St. Louis. Classes are held in the teachers' college buildings and for the most part coincide with those in liberal arts subjects given student teachers in their freshman and sophomore years. The junior colleges are co-educational although the four year teachers' colleges are for women only.

St. Louis has never followed the plan of homogeneous grouping but has insisted that adapting instruction to the individual needs of pupils is the responsibility of each teacher. Separation is unnatural, it is felt, and prevents normal emotional development in the child.

Special schools are, however, maintained for pupils with an intelligence quotient of less than 70 and for



A rehearsal of a 250 voice high school chorus with the St. Louis Symphony.



Under Missouri law Negroes attend separate schools which have Negro teachers and principals. These schools parallel those for white children.

groups of pupils with various physical handicaps. These schools are classified as follows: for the deaf, 1; for physically handicapped, 2; for mentally handicapped, 15; open air schools, 3. There are 5 special classes for sight conservation, 5 for the hard of hearing and 36 for speech correction. The board also supplies teachers for classes in 3 institutions of reform and in 6 hospitals.

A psychiatrist to give diagnoses in cases of mental or neurological pathology found among school children has just been added to the number of special services provided from the central office. These special workers include, in addition to the supervisory staff, physicians and nurses, attendance officers and psychometrists.

Vocational education in St. Louis centers around the large Hadley Vocational School, which enrolls 3167 pupils in full daytime courses and 2700 in part-time extension work,



Journeymen awning workers return to the Hadley Vocational School for a short course of training in new aspects of their trade. Hadley enrolls 2167 pupils in part-time courses. A similar trade school is maintained for Negroes.

and the Booker T. Washington Vocational School for Negroes, which enrolls 513.

Within the last two years, three ninth grade branches of Hadley have been opened. All ninth grade vocational classes are exploratory, offering general training and background to guide pupils in the selection of commercial and industrial courses in the tenth year.

As a result of the close cooperation that has always existed between the school and employer and employe groups, Hadley conducts a number of courses officially sponsored by business groups as well as classes for training apprentices of various trade unions.

A new high school and a new elementary school have been finished since the school superintendents vis-

ited St. Louis in 1936 and, at present, a teachers' college for Negroes and four elementary schools, two for white children and two for Negroes, are being built through the cooperation of the P.W.A.

The Southwest High School, built in 1937, will be of special interest to educators. Of a modified modern design, the building has the latest equipment throughout. It has

a two-way public address system through which the principal may speak to all or part of the rooms and the teachers may answer. The system also broadcasts to all or some of the rooms programs originating either within or without the school building. Although located on the south side of the building, the art rooms have been arranged to have the north light, which artists prefer. The auditorium is interesting because of the accuracy of its sight lines and its acoustics and because it is equipped with an electric organ.

Visitors who come to St. Louis by train will be greeted by the beautiful new fountain, the work of the famous sculptor Milles, that has just been erected on the Aloe Plaza opposite Union Station. The fountain, called "The Wedding of the Waters," symbolizes the union of the Missouri and Mississippi rivers, which takes place just north of the city. On the other side of the station they will see the new \$5,000,000 Central Post Office. Several blocks east, on the Municipal Plaza, where the convention headquarters will be located, is the new Soldiers' Memorial, erected two years ago to the memory of St. Louisans who died in the World War. Of simple and impressive design, the Memorial calls to one's attention Château-Thierry, Belleau Wood and other names associated with the war.

Another St. Louis innovation that may be of interest is the express highway. The highway, which is depressed below street level with overpasses for cross traffic, makes possible swift transportation from the suburbs to the downtown district and effectively assists in the solution of the problem of metropolitan automobile traffic.

Growth and progress, however, have made no change in the essential quality of old St. Louis, a quality of maturity and balance that is instantly recognized by those who know the city. You who come here in February will find in the teaching staff the same interest and enthusiasm for educational progress that pleased you four years ago. You will also find the warm hospitality that has been characteristic of the city since the early days of river boat travel.

A. A. S. A.
St. Louis
Municipal Auditorium
February 24-29

Technic for Mimeograph Paper

JOHN I. RUSSELL

Student, University of Minnesota

MANY high school mimeographed papers have no more right to call themselves papers than the mimeographed sheet the local grocer puts on the front porch every Friday advertising his week-end specials.

This classification is not all-inclusive; there are numerous mimeographed papers that are excellent, from the standpoint of typography and general editorial content.

However, if the school paper belongs to the class that is characterized by smeary, unintelligible copy, haphazard makeup and a host of other faults, it may be hard to excuse its physical appearances.

The principal fault of many papers is a slovenly appearance. Let us take up the mechanical process of putting a mimeographed paper together, suggesting improvements and pointing out the errors most commonly committed.

Stencil Must Be Cut Properly

To begin with, a neat page cannot be reproduced from a poorly cut stencil. Before cutting a stencil, clean the typewriter keys thoroughly with benzine and a stiff brush. Instruct the stencil cutter to type smoothly and to strike the keys with slightly more than medium force. Beware of the "o"; too much force on this key will cut the character out entirely and reprint a big black period on the paper. Use correction fluid on stencil errors; do not strike over.

A school paper that has no definite width for its columns is a sorry sight indeed. This simply suggests laziness. If the paper is three columns wide—and this width is recommended for best results—figure each column to take up 26 typewriter spaces.

This can be done easily, although it requires more copy typing. Do the first copy typing from the original on ordinary adding machine paper. Set the typewriter's marginal stops to

include 26 spaces, then type each line to fit this width as closely as possible. When you notice that you are coming to the end of this width, still having several spaces to go and having a word which is too long or which cannot be hyphenated, strike the characters /, 2, 3. Your first typing should then look like this:

The annual Hi-Y dinner /
dance will be held in the /
Ritz hotel next Saturday /23
night. Bob Monroe's band /234

Now you are ready for the second typing. Still using adding machine paper, retype from the first copy, typing in this manner. Observe the number of spaces that are left over at the end of each sentence, then insert extra spaces between the words to cause each line to come out to 26 spaces exactly. Whenever you insert an extra space between words, strike the pound character "#." This enables the stencil cutters to strike the space bar whenever one of these characters appears, without bothering to count out the spaces between each word. Your second typing resembles:

The #annual Hi-Y #dinner
dance #will be held #in the
Ritz #hotel #next #Saturday
night. ##Bob #Monroe's #band

Try to intersperse these spaces as evenly as possible. Place them between long words or words that end or begin with tall letters (l, t, h and d) so that they are less obvious. A good rule to follow in typing first copy is to eliminate all spaces after punctuation marks. Then when spaces have to be taken up in the second typing, they can be inserted here.

There is hardly a school that does not have at least one pupil who is fairly proficient in drawing. By all means, induce that pupil to become the art editor. Invest in a mimeoscope and furnish this pupil with a good stylus set. Have him draw cartoons to set off feature columns. Box some stories; anything to break the

monotony of straight columns of copy.

Do not rely on the typewriter for all heads. Lettering guides are inexpensive and the art editor can letter some heads. This is especially desirable on the front page and on the sports page, where two column or even banner headlines can be used. Have editorial titles in script and head feature columns with stylus lettering.

The front page is the showcase. Balance it. Use two or three deck heads for stories. A good sample is a three line inverted pyramid followed by one or two decks of drop-line heads. Start as many stories as is reasonably possible on the front page and continue them on the inside pages. Have the art editor box in "Hi-Y—cont. on p. 5" and also "Hi-Y—cont. from p. 1." Vertical lines between the columns also improve the paper's appearance.

Make Title Head Attractive

For the title head, spare no pains in making it attractive. Also give the sports page and joke page a good title head. Remaking these heads every time the paper "goes to press" is not necessary. Run off enough of these title pages on your mimeograph to suffice for the rest of the year's editions.

Color may be easily added to the special editions, such as Thanksgiving, Christmas, St. Patrick's Day and Easter. Do not be content to use merely one color; go the whole limit, use three or four.

After selecting the illustration you are going to color, determine the colors you will use for each part of this illustration. For instance, for the Christmas number if you decide to have the entire front page consist of a drawing, with Christmas bells, green holly and red berries decorating the borders, choose a color for the various parts of this drawing.

The art editor now draws on one stencil all the material that is to be
(Continued on page 60)

Chalk Dust

SUPERINTENDENT'S SONG

Roll out the aspirin bottle,
See that it's filled to the brim;
The tumult and strife
Of a schoolmaster's life
Is sapping my wigor and wim:

Willie tore his panties and what you going to do? Mable broke her glasses and father wants to sue. Ring! There goes the telephone, someone raising hob: "Get a winning football team or get another job!" Classrooms gone progressive, new psychology, good old course of study ain't what she used to be. Boiler sprung a spigot, budget slipped a peg. "Say, Prof., that new table lost another leg."

Fetch forth the aspirin bottle,
A slight gulp of real H₂O,
Hold back the crowd,
As bloody, unbowed,
Into the battle I go:

Book men in the hallways, agents at the door, irate tax committees lined up by the score. Building plans in cart loads, scattered here and there, sample books and dirty looks mingling everywhere. "He tore 'em on the playground skidding down the slide, twenty bucks for iodine and ten for wounded pride." Oh, for peace and comfort! Oh, for hope and cheer! Talk of war in Europe, Boy, MY war is here!

• •

MY GOSH, Art, it's January again and Chalkdust celebrates its first birthday. We are one year old and fast becoming articulate. Hundreds, nay dozens, of our friends and members of our faculty have congratulated us and commended our militant stand upon the commonly accepted academic issues and the high price of cafeteria pie. Many others (two letters and a postcard view of Miami Beach) have criticized us, but one was from a progressive school and we couldn't decipher the writing.

Chalkdust bumbles into the second year. We shall continue to compete with the Index of Advertisers (see page 13) and Better Plant Practices (turn to page 78). Some day we may even be cuddled up next to the latest Portfolio of Insanitary Practices in Modern Schools.

Despite the flood of criticism that has been heaped upon our inspiring poetry, we

shall continue to split our gerundives, and our meter shall be a private matter that rests between Allah and ourselves. Our platform will echo the best thought of teachers everywhere; Academic Freedom, when, as and if; no telephone calls after midnight, and a free lunch for every speech.

Chalkdust jitters on!

• •

COMES January, the month when the school boilers develop pernicious anemia and the kids get the measles, whooping cough and midyear mildew. 'Tis a month of parties, church suppers, charity drives and bills payable, a month when teachers go quietly and dignifiedly crazy and get engaged to the young man in the corner drug store.

Encyclopedically speaking, January is dedicated to all school teachers and particularly to school executives. Janus, after whom the month is named, was a hoary old pedagogue and the ancient tintypes show him decked in full pedagogical regalia with a scepter in the right hand and a bunch of keys in the left. School folk still carry the scepter and the keys, including those for the radio cabinet and the dispenser in the room down the hall.

Superintendent Janus is also pictured as having two faces so that he could look both ways at once and jump accordingly. In these troubled times, this is a desideratum for all school administrators.

Authorities on ancient lore say that Janus was the supreme janitor of heaven. All doors (jauna, to you) and all passages (janus, to you) were under his care. Even the ancients had trouble with the bubbler fountains in the halls and old Janus probably spent many a weary hour glaring through the corridors when he might have been dozing at his desk.

But the researchers conclude on a sweeter note. Janus was called "father" and he was the opener of the gates of sweetness and light. May you, my dears, take a lesson from an old mossback and, during the year ahead, open the gates of light, of new dawn, of revelation and of understanding to the young people who look to you for help.



Whose Children Profit Most—

From Extracurricular Activities?

F. BYRON CORY

High School Activity Manager, Creston, Iowa

QUESTIONNAIRES were sent to 473 pupils that had been graduated from the high school at Creston, Iowa, for the six year period, 1927 to 1932, to ascertain the influence that the father's occupation plays upon the participation of the high school pupil in extracurricular activities.

In order to equalize the participation of high school pupils in extracurricular activities, information also was sought to determine from which occupational groups children come who reap the largest benefits from a high school's extracurricular program and which groups profit least from extracurricular activities.

The majority of the pupils enrolled in Creston High School, or 84.2 per cent, lived within the city limits. Of 15.8 per cent of rural pupils in the total enrollment, 4.1 per cent spent the week days with relatives, in rooming houses or working for their board and room. The average pupil who commuted drove 61/6 miles each way, or a total of 121/3 miles daily.

Table 1 shows the percentage of graduates whose fathers were engaged in certain occupations. The questionnaire requested that the father's occupation be listed under one of seven classifications: (1) professional, (2) manager or proprietor, (3) salesman or clerk, (4) skilled trade, (5) farmer, (6) unskilled workers or (7) unemployed. The table shows the percentage for each year and the six year average.

During the first three years of this period there was great prosperity; a stressing economic situation prevailed in the last three years. Probably the most noticeable change in the percentages is seen in the proprietor and manager classification where there was a steady increase until the depression years. The professional column steadily increased over the years covered. Salesmen and clerks were dropped in large numbers in 1929-30,

but as people started to buy again they were reemployed.

Creston, a city of 8600, is so situated geographically that many traveling salesmen reside in the city. A large roundhouse of the Chicago, Burlington & Quincy Railroad, which is located here, gradually decreased its staff during these six years. A

glove factory and a tile factory closed. The surrounding territory is entirely agricultural.

Table 1 gives an individual an idea of the percentage of men engaged in various occupations. Even in a city of this population during the six year period, the largest percentage of fathers were farmers or

Table 1—Classification of Fathers' Occupations for a Six Year Period

Type of Occupation	1927	1928	1929	1930	1931	1932	Six Year Average
Professional.....	3.7	3.1	5.3	11.4	6.1	6.8	6.0
Proprietor and manager....	11.1	12.5	13.2	18.2	6.1	3.4	10.7
Salesman and clerk.....	14.8	15.6	7.9	2.3	18.2	11.9	12.8
Skilled trade.....	29.6	6.3	26.3	25.0	18.2	18.6	20.7
Farmer.....	14.8	31.3	18.4	20.5	19.7	27.1	21.9
Unskilled workers.....	14.8	21.9	21.1	15.9	21.2	25.4	20.1
Unemployed.....	11.1	9.4	7.9	6.8	10.6	6.8	8.8

Table 2—Average Participation in Activities by Graduates According to Fathers' Occupations

Occupation of Father	Average for Boys*	Average for Girls	Average Both Sexes
Professional.....	9.0	10.7	9.0
Proprietor and manager.....	7.5	10.8	8.8
Salesman and clerk.....	10.5	9.0	9.8
Skilled trade.....	6.5	10.2	9.0
Farmer.....	5.5	5.8	5.8
Unskilled labor.....	7.0	7.6	7.0
Unemployed.....	7.0	7.5	6.8

*The six year average was obtained by taking the number of extracurricular activities participated in by each pupil and dividing by the number of pupils, then averaging the percentages for the six year period.

Table 3—Average Number of One Year Units of Extracurricular Activity Participation by Graduates Whose Fathers Are Engaged in Certain Occupations

Occupation of Father	Average for Boys*	Average for Girls	Average Both Sexes
Professional.....	18.4	15.5	19.1
Proprietor and manager.....	11.6	16.8	17.1
Salesman and clerk.....	20.5	18.0	20.2
Skilled trade.....	10.5	21.6	18.3
Farmer.....	9.3	10.3	9.7
Unskilled laborer.....	11.8	14.5	14.7
Unemployed.....	10.8	18.3	14.8

*The average number was obtained by calling each activity a unit. If a pupil took band for four years that would be 4 units; one year of dramatic club counted 1 unit, and one year of basketball, 1 unit. The number of one year units taken by each group (professional and farmer) was divided by the number of graduates in that group for one year. The six year average was obtained by adding the one year units of one group over the six year period and dividing by the number of graduates.

retired farmers. Next in order were skilled laborers, unskilled laborers, salesmen and clerks, proprietors and managers and unemployed. The professional group was smallest.

Table 2 gives the average extra-curricular participation of pupils whose fathers were engaged in the various types of occupations. This table actually combines three tables. Only the averages for boys, girls and both sexes are combined for the six year period.

Table 2 shows that boys whose fathers were salesmen or clerks participated, on the average, in more activities than any other group. The sons of professional men ranked second. The lowest ranking groups were the children of skilled laborers and farmers. Those pupils whose parents were farmers ranked only half as high as the highest group, because it is usually impos-

sible for boys living on a farm to enter after-school activities.

Table 2 shows that the daughters of proprietors, professional men and skilled laborers ranked high. The girls who lived in the country had less opportunity to participate in activities than those who lived in the urban district.

When the figures for both sexes were combined, it was noted that salesmen and clerks ranked first. In their descending order of rank professional and skilled labor tied for second; proprietor and manager ranked third; unskilled trade, fourth; unemployed, fifth, and farmer, last. The pupils from the country even averaged one point lower than those whose fathers were unemployed. The children from the unemployed group might be expected to be handicapped because of a depressed outlook and a lack of money for

equipment in some school activities.

In table 3 the number of one year units of participation in extracurricular activities by graduates have been averaged. When boys were considered, two occupations ranked far above the other five, (1) salesmen and clerks and (2) professional. More than one point lower than all others was the group whose parents were farmers.

Table 3 shows that those girls whose fathers were engaged in skilled trades, who were unemployed or who were salesmen ranked in the order mentioned in their average number of one year units of participation in extracurricular activities. The rural girls were more than 4 points below and the next to the lowest group. The children of farmers ranked considerably lower than the one ranking next.

When the figures for both sexes were compiled, the original figures were averaged instead of the percentages in the first and second columns. For this reason the average for both sexes was more accurate. Of all the graduates, the ones whose fathers were salesmen and clerks ranked highest. In order of rank from highest to lowest we find: professional, second; skilled trade, third; proprietor and manager, fourth; unemployed, fifth; unskilled labor, sixth. The farming class was lowest by five points, which is the group that needed to participate in extracurricular activities more fully than the urban group. Rural youth in general is more backward and needs the acquaintances and contacts to be gained from such experiences. This table indicates that the children whose parents were probably better educated, as shown by their type of occupations, have a greater chance of participating in the extracurricular program of a high school.

It might be advisable to give more time during the school day for the more popular activities. If activities that are considered worth while are scheduled during school hours, the rural pupils will receive more benefit from the program. In the future if people are to have more leisure time, the schools can do much to prepare people to use this time wisely.

What Causes Teacher Illnesses?

Poor ventilation and overheated classrooms are the chief causes of illness among teachers, according to a survey made by a special committee of the Delaware State Department of Education. This is the opinion of principals, supervisors and physicians. The teachers themselves, however, attribute their ills to lack of adequate rest rooms, with distracting noises from outside the classroom.

The teachers listed the following conditions as injurious to their health; frequency with which each cause was mentioned is given in the tabulation:

Lack of comfortable rest rooms for teachers	1470
Noise outside the classroom	1403
Defective ventilation	1093
Dust in room, from neglected blackboards, floors or furniture	921
Lack of sufficient or sanitary toilet facilities for teachers	851
Cold, drafty room	785
Improper lighting	758
Building so planned that excessive walking or climbing of stairs is necessary	688
Lack of warm noon lunch	618
Unsuitable school furniture or equipment	567

Lack of drinking water dispensed in a sanitary and convenient way	551
Air too dry	524
Neighborhood situations that aggravate discipline problems	413
Excessive heat in schoolrooms	398
Janitorial work required of the teacher	279
Depressing neighborhood environment	244
Disagreeable neighborhood odors	183

Principals and supervisors agreed that defective ventilation was the principal cause of illness or fatigue among teachers, but doctors thought that overheated classrooms were worse. Cold and drafty rooms were regarded as bad by principals and supervisors; doctors put them down fairly low in the list of possible causes of illness.

All groups agreed that undesirable neighborhoods, while they might offend the esthetic sense of teachers, didn't rank high as a cause of illness. "Unsuitable furniture or equipment" ranked equally low. Improper lighting was regarded as an evil by all groups, but doctors and supervisors attached more importance to this defect than did teachers.

Cutting Transportation Costs

JULIAN E. BUTTERWORTH

Director, Graduate School of Education, Cornell University

THE transportation of pupils to public schools in the United States is "big business," with an annual expenditure of approximately \$61,000,000 in 1937 for motor vehicle transportation alone. Although this is a large sum, it appears to be creating no widespread criticism among taxpayers. Two factors are probably largely responsible:

1. Transportation costs are a small proportion of the sums provided for public education: in the United States, about 3.1 per cent; in New York, about 1.7 per cent.

2. Even if these percentages are doubled, as may well be the case during the next two decades, the American people seem likely to accept this cost in preference to the alternatives. These alternatives are: (a) giving rural children only those educational opportunities that may be provided through existing small schools; (b) taking the special services, now considered an essential part of a school program, to these small schools (which can be done, even though inadequately, in such activities as music, medical inspection and industrial arts, but which cannot be done in such services as industrial education or laboratory science), or (c) throwing back upon the family the responsibility for seeing that children are transported to a school with adequate offerings.

State Aid Is Accepted Plan

The American people have, in effect, made their decision on this matter, as evidenced by the legislation now upon the statute books of our various states. The responsibility of the state for assisting communities with a financial burden that would otherwise be unbearable in many cases has been recognized through more or less effective plans of state aid.

This liberality on the part of taxpayers does not, however, absolve the administrator of responsibility for

seeing that any necessary transportation is provided at reasonable cost. Not only is he expected to use ordinary business acumen in planning his transportation program and in checking costs but he should study his problem as does the manager of any commercial concern. He should inform himself regarding transportation costs in comparable communities as a guide in evaluating the reasonableness of his own.

For example, in 1936-37 it cost central districts in New York State, on the average, \$33.23 to transport a pupil by district-owned bus; \$23.21, by public service conveyance, and \$56.18, by private contract motor vehicle, while the average for all was \$37.32.¹ If costs are markedly higher than these averages, it is the administrator's responsibility to make such analysis as will enable him to reduce costs or to convince reasonable people that higher costs are warranted under the conditions in that community.

Factors Affecting Cost

As such analyses are made, it will be found useful, if not imperative, to understand the factors that affect the cost of transportation. On this point dependable data are gradually being collected. Does it pay a district, on the average, to own and operate its own garage or would it be better to contract with a private concern? A confident answer cannot, at present, be given, partly because of a lack of adequate experience.

In the only study of this factor with which I am familiar, Doctor Christensen compared the 33 central schools of New York maintaining a school garage in 1936-37 with 33 comparable "nongarage" schools.² The total cost per pupil

¹Pupil Transportation in Central Districts, Bul. No. 1149, University of the State of New York, 1938, p. 7.

²Christensen, C. J.: The Significance of the School Garage as a Factor in Transportation. Ph.D. thesis, Cornell University, 1938.

year was \$35.32 in garage schools and \$35.69 in nongarage schools while the current cost was \$24.38 and \$23.42, respectively. The differences are insignificant. However, his data show that garage schools are superior as to safety, comfort and dependability when measured by such factors as the times vehicles were hauled in for repairs, the times vehicles were repaired on the road, the delays and the times emergency vehicles were dispatched.

Attempts at Evaluation

Attempts to evaluate other factors that affect transportation costs have been undertaken by Evans in California, by Noble in North Carolina, by Reusser in Wyoming, by Roberts in Arkansas and by Hutchins in Ohio. While several factors have been found to be of greater or less significance in certain states, two are dominant: the length of the haul and the number of pupils hauled per vehicle.

Suppose a district has in its fleet one bus with a capacity of 20 and another with a capacity of 60. It will cost practically as much to employ a driver for the one as for the other and this item accounts for about 35 per cent of the total cost. Gas and oil consumption will not be three times as much in the larger vehicle nor will insurance and storage. The cost per pupil mile will, therefore, other conditions being equal, be smaller in the larger vehicle.

Suppose, further, that in this fleet one bus with a load of 60 pupils travels 20 miles per day while another with the same load travels 40 miles. Insurance, storage and interest will be the same for the two while the driver's salary for the second will certainly not be twice as much. The pupil mile cost will be smaller in the vehicle that travels the longer distance.

Roberts' data for Arkansas show that in 1930-31 it cost, on the average, \$4.29 per day to run a 20 pupil bus 20 miles but only 37 cents more to

run a bus of twice that capacity for the same distance.³ These data show also that it costs only 51 cents more per day to run a 40 pupil bus 20 miles than it did to run that bus 10 miles.

With similar data for his state, the principal of a local district can make comparison with his own costs and can determine whether they are, possibly, too low to ensure efficient service, too high for the results obtained or reasonable under the conditions that prevail in the community. But note that his decision is the result of analysis; it is not a guess. Of course, the intelligent principal will realize that in the use of these data he is giving consideration to certain factors only. If he has secondary routes or uses horse-drawn vehicles for part of the year, the formula must be modified.

Cost Procedure in Ohio

The state of Ohio has, to the best of my knowledge, made the most complete use of the general procedure just described.⁴ There, the state director of education is required to recommend for each district an amount for pupil transportation. These recommended amounts are calculated on the basis of four factors beyond the control of the board of education (number of pupils transported, density, condition of roads and number of bus miles per square mile). In addition, six factors involving policies of management are considered. Tables are given that enable the administrator to determine recommended cost, together with suggestions for reducing costs where necessary.

Practically all studies show that district-owned vehicles give a lower per pupil cost than contract vehicles. For example, in the central districts of New York in 1936-37 the average per pupil cost was \$29.38 where the district owned its buses and \$43.39 where contract vehicles were used.⁵

³Roberts, Roy W.: *An Analysis of the Cost of Pupil Transportation in Arkansas*, Bulletin No. 316, Agricultural Experiment Station, University of Arkansas, 1938, p. 22.

⁴Administration of Pupil Transportation. Bul. No. 2, revised, State of Ohio, Department of Education, 1938.

⁵Pupil Transportation in Central District. Bul. No. 1149, University of the State of New York, 1938, p. 8.

The difference is \$14.01 per pupil. There is a question, however, as to whether raw data, such as these, mean what they appear to mean. For example, the district-owned vehicles in New York carried, on the average, 55 pupils a distance of 29.3 miles per day while contract vehicles carried only 31 pupils a distance of 16 miles. Undoubtedly, a part of this \$14.10 is accounted for because of the fact that the typical contract vehicle is smaller than the district-operated ones and would, therefore, according to evidence already presented, be more expensive. Furthermore, there is evidence that costs of administration in district-owned systems are frequently charged to "general control," not to "transportation," while in the contract plan any costs of administration involved in managing the vehicles must be charged to transportation or not at all.⁶

Obviously, transportation cannot be studied intelligently in the absence of a system of collecting consistently information about expenditures and of classifying the various items uniformly. At present such costs are usually included in a lump sum as a subdivision of "auxiliary agencies." If an adequate analysis is to be made, this lump sum must be broken down for important phases of costs, such as gas, oil, tires, storage and interest. Adequate comparisons and analyses cannot be made if one school includes a part or all of administration under "general control" and another under "transportation"; or if new tires are charged by one school to "capital outlay" and by another to "transportation." Yet this is exactly what happens now.

Dr. R. M. Tisinger,⁷ in a recently completed plan for classifying these costs, sets up categories of "administration," "operation of vehicle," "operation of garage," "maintenance of vehicle," "maintenance of garage," "maintenance of buildings, equipment and tools," "fixed charges," "debt service" and "capital outlay." The plan adequately defines each category and by numerous illustra-

⁶District ownership does have certain advantages from the point of view of cost, such as freedom from certain taxes and, sometimes, better bargaining power.

⁷Tisinger, R. M.: *A Uniform System of Cost Accounting of School Transportation*. Ph.D. thesis, Cornell University, 1938.

tions reduces the chances for error in classification. It enables the administrator who wishes to keep his costs, *i.e.* what transportation actually costs in a given year, regardless of when the costs were paid, separate from his disbursements, *i.e.* what he actually paid out during any year. Finally, these items may be classified minutely or in large groups as he wishes and the various items included in this transportation account may be distributed to administration, to fixed charges, to capital outlay or to transportation, as required by the system of classifying disbursements.

Measuring Quality of Service

A brief reference, at least, must be made to what is, perhaps, the most important of all problems in transportation, namely, the measurement of the quality of transportation service provided for the children of a community. Dr. Virgil Ruegsegger⁸ has devised an ingenious instrument for measuring the effectiveness and quality of service of buses, routes and transportation systems. In this score card, the main categories are conveyance, operating personnel, regularity of service, convenience, comfort and security. Each of these is again divided into its important constituent elements and through the use of objective data and standards, a high degree of reliability has been achieved. Although this score card was developed for conditions in New York central districts, it can readily be extended for use under a variety of conditions. This is now being done. This instrument is likely to have wide use; by it we can compare effectiveness among transportation systems and, ultimately, should be able to express costs in terms of a standard of quality.

The foregoing merely presents illustrations of what research is doing to give greater understanding of problems in pupil transportation. It is the responsibility of leaders of education in the various communities to utilize such researches, to criticize them and so to stimulate further study as to how this important activity may be administered effectively and economically.

⁸Ruegsegger, Virgil R.: *Measuring the Quality and Effectiveness of Pupil Transportation*. Ph.D. thesis, Cornell University, 1938.

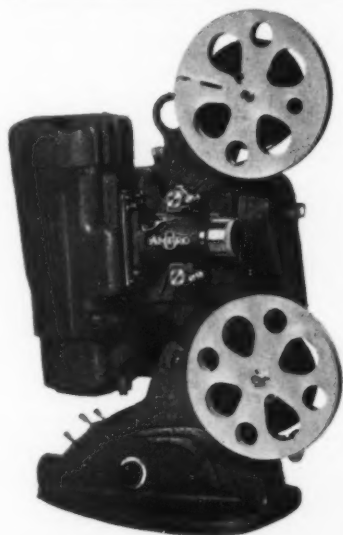
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Janitor and Judge

M. M. CHAMBERS

Specialist in School Law

SOME recent decisions concerning the application of workmen's compensation laws to school janitors were discussed in *The NATION'S SCHOOLS* two years ago.¹ For the present let us look at more general aspects of the janitor's employment and tenure as lately defined by the courts.

The principles of contract law that we ordinarily associate with the employment of teachers are generally applicable to janitors. One of these principles is that there must be a mutual agreement between the school board and the employe. This need not always be evidenced by a formal contract, however. If a janitor is hired by an agent of the board without its knowledge or consent and if the board later acquiesces in his employment after it has full knowledge of the facts, this will amount to a ratification of the unauthorized contract.

No Ratification of Contract

That there can be no ratification except in cases in which the board knows all the facts is illustrated by an Oklahoma case. At Bartlesville a janitor was hired by the head janitor without authorization at \$50 a month for ten months beginning September 1. The board allowed him to work and paid his salary up to the middle of November, when it discharged him. In his suit for the rest of the year's pay he offered no proof that the board ever knew the terms of the agreement. The board admitted that it had acquiesced in his employment but only on a month-to-month basis and not for any definite period of time. Hence, the court could only conclude that there had been no ratification of his ten month contract and his suit failed.²

A different situation was presented

¹Workmen's Compensation for School Employes, *The NATION'S SCHOOLS* 21:39 (Feb.) 1938.

²Board of Education of City of Bartlesville v. Montgomery (Okla.) 60 P. (2d) 752 (1926).

in a New Jersey case. Here a janitor who had worked for some years after being hired for an indefinite period by the school business manager allegedly without authorization was discharged by the board and a successor appointed. The evidence showed that for two successive years he had been asked to sign and had signed an agreement to "donate" a percentage of his salary to the board and these documents were part of the minutes of the board. These "donations" (a depression expedient to balance the budget) had been requested of all teachers and janitors but not of temporary janitorial "extras."

Moreover, it appeared that the vice president of the board, who was also chairman of the building committee, had been a party to the transactions with this janitor. "The board here," said the court, "is unquestionably charged with knowledge of the official acts of the mentioned agents and of the contents of its own minutes." Accordingly, the janitor's employment for an indefinite period was held to have been ratified and he could successfully invoke the janitors' tenure act of 1911 to regain his job.³

May Sue for Wages

A second suit between the same parties was precipitated by another issue, namely, after having unlawfully dismissed the janitor and having appointed and paid his successor for doing his work until he was reinstated, could the board of education be compelled also to pay him for the time between his dismissal and his reinstatement? At common law the answer would be "no," because a *de jure* employe is not entitled to be paid for service that has been actually performed by a *de facto* employe. However, there is

³Ratajczak v. Board of Education of City of Perth Amboy, 114 N. J. L. 577, 177 A. 880 (1935), affirmed in 116 N. J. L. 162, 183 A. 214 (1936).

in force a New Jersey statute stipulating that any municipal employe may sue and recover his salary for a period covered by a dismissal that has been adjudged illegal by a court of competent jurisdiction. Consequently, the janitor was entitled to a judgment for his salary for the period of his dismissal, despite the fact that the board had paid another person for performing the service during that period.⁴

Tenure Restrictions

The New Jersey act of 1911 provides that, after acquiring indefinite tenure, a janitor cannot be dismissed or have his salary reduced without his consent unless the board so determines after a hearing on a sworn complaint against him. A later and similar case under this act involved a janitor at Trenton who had served continuously since 1924 and had attained a salary of \$1680 for the year 1929-30. During the four years 1933-37 he accepted a salary of \$1344 in accordance with the provisions of a temporary legislative act authorizing boards of education to reduce salaries. After the expiration of this act in 1937 the board fixed his salary at \$1428 and he sued for the restoration of his predepression pay of \$1680 and won his case. The decision also applied to his fellow plaintiffs in the same situation, with the exception of those who had accepted the salary after July 1, 1937 without signing any notice of protest. "As to them," said the court, "a question of fact is presented and not met."⁵

It seems also that some janitors in New Jersey school districts are under the protection of the civil service act of 1910. Thus at Seaside Heights, where a janitor was discharged allegedly for violating a new rule of the board of which he had not been apprised, requiring janitors

⁴Ratajczak v. Board of Education of City of Perth Amboy, 118 N. J. L. 311, 192 A. 591 (1937).

⁵Kriser et al. v. Board of Education of City of Trenton, 122 N. J. L. 323, 5 A. (2d) 466 (1939).

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to be on duty during specified afternoon hours, the court held his dismissal contrary to the civil service act and affirmed an order of the state board of education directing his reinstatement.⁶

A 1939 decision of the Wisconsin supreme court placed more than 300 "janitorial helper" positions in the Milwaukee school system on civil service status. The city has 105 school buildings, with one engineer-janitor (under civil service) in charge of each.

Hitherto, the janitorial helpers had been selected and paid by the respective engineer-janitors, each of whom received a lump sum compensation sufficient to enable him to hire helpers. A state statute of 1937 provided that "all officers and employees of the school board of any city of the first class, with the exception of superintendents, assistant superintendents, principals, teachers and substitute teachers actually engaged in teaching, shall be selected and have their employment status and tenure determined" in accordance with the statutes and rules adopted thereunder applying to the board of city service commissioners of each such city.

Janitors Are Board Employees

The litigated issue in the Milwaukee case was as to whether the janitorial helpers were employees of the school board or were merely employees of the engineer-janitors acting in the capacity of independent contractors. The court decided that the engineer-janitors were not independent contractors and that the janitorial helpers were in the direct employ of the board of education.

Among the facts supporting the decision was the circumstance that the board of education furnishes all materials and tools, reserves entire control of the method and conduct of janitorial work and exercises supervision through a supervising engineer-janitor. Moreover, the principals often exercise immediate control over both the engineer-janitor and his helpers. This is authorized by a statute of 1907 defining the duties and powers of principals.

⁶Board of Education of Borough of Seaside Heights v. Shepherd et al., (N. J. L.), 191 A. 739 (1937).

Furthermore, it was found that the city had in the past paid workmen's compensation awards to injured helpers, had made contributions to the state unemployment insurance fund for the benefit of the helpers and had even gone so far as to obtain exemption from the social security tax for the helpers on the ground that they were in public employment. In the face of these facts it could hardly be denied that the helpers were public servants and, accordingly, the court affirmed a writ of peremptory mandamus ordering the board of education to report to the city service commission the number of janitorial helpers and other information sufficient to enable the commission to classify the positions and create lists of eligibles from which appointments shall be made by the board of education in conformity with the civil service statute.⁷

Indirect Compensation

Lastly, it is interesting to observe that New York City still has the quaint system of "indirect compensation" under which one janitor is employed to be solely responsible for one building, at a compensation sufficient to enable him to hire and pay necessary assistants. Some of its difficulties came out in a suit brought by a janitor who began at Washington Irving High School in 1913 on that basis at an annual compensation of \$22,480. There was in force a "measurement system," whereby janitors' pay was determined by multiplying the number of square feet of floor space to be cleaned by a standard unit price and adding premiums for special conditions requiring extra service. Under this regular formula the compensation at Washington Irving would have been only \$10,260, but it was fixed at more than twice this figure because of evening school activities and also because of the unusual nature of the building and other qualifying factors.

In 1918 the compensation of all janitors was increased 10 per cent and in 1919 a new schedule was adopted in which the Washington Irving janitor's pay was further increased by \$136 a year. At this time the board of education formally re-

⁷State ex rel. Cooper et al. v. Baumann et al., (Wis.), 286 N.W. 76 (1939).

solved that the schedule fixing janitorial compensation on an impersonal measurement basis be adopted as the official plan of compensation for the janitorial force "in all regular day activities." The Washington Irving janitor thereafter continued as usual for some sixteen years and later sued for \$52,584.77 as accrued extra compensation for his evening school janitorial service from 1926 to 1935, basing his claim on the phrase just quoted from the board resolution of 1919.

A judgment in his favor was reversed by the appellate division, holding that in the light of all the facts the resolution of 1919 was not intended to change the basis of his compensation as fixed in 1913. The next highest compensation listed for any of the other 500 school building janitors was \$15,928, approximately \$9000 less than the plaintiff's pay. Obviously, his was an exceptional case, not conformable to the regular scheme. He was never really under the "measurement plan," thought the court, and the new schedule and the resolution of 1919 were intended to apply only to such janitors as were paid on a measurement basis.⁸

⁸Dowd v. Board of Education of City of New York, 256 App. Div. 749, 11 N.Y.S. (2d) 761 (1939).

Mimeographing Technic

(Continued from page 51)

in red. This stencil is then put on the mimeograph, the mat of which has been saturated with red ink, and is run off. He then takes a second stencil and draws the portion that is to be colored green. This stencil is run off on the mimeograph which, of course, now has a green mat (the mats are detachable) on the same paper used for the red stencil. The same procedure applies to the other colors.

A practice that must be followed if the paper is to be kept clean is "slip sheeting." This duty does not tax anyone's ingenuity. The "slip sheet" merely puts a piece of scrap paper between the sheets as they are ejected from the mimeograph. This prevents the wet ink from soaking into the sheet on top of it.

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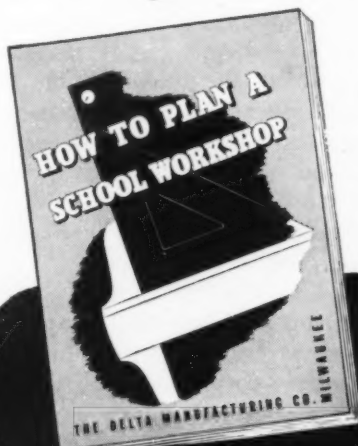
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L. D. HASKEW

Superintendent, Monroe, Ga.

TALKING to a small town superintendent about getting publicity for his schools is frequently in the same category with informing him how to make more debts. He feels that he already has too much of both.

There are several indications, however, that the smaller communities are those in which there is an acute need for a constantly vigilant and vigorous program of school publicity. The high turnover rate in professional personnel, the frequent cataclysmic quarrels resulting in crippled educational facilities, the grudging support of financial needs are surface indications that small town people are not thoroughly sold on their schools.

Perhaps many administrators and leaders of educational endeavor in the smaller communities have conceived of school publicity as something necessary in urban situations but not to be given much weight in the typical small town. Yet, it would be hard to demonstrate that any large city is more in need of the right kind of school publicity than is the old home town, because of certain peculiarities of that wonderful institution, the American village.

Gossip About the Schools

In spite of all the advances in the science of entertainment, the chief diversion of most of the inhabitants of smaller communities is the ancient and more or less honorable one of talking. People are going to talk and they are going to talk about the schools. In the absence of factual knowledge, this school talk is going to be the repetition of hearsay, much of it damaging to the development of a real educational system founded upon high ideals and proved principles.

Another characteristic of small towns that results in a need for better school publicity is the complacency of the vast majority of the citizens

who go to make up that town. Psychologically, this complacency may rest not so much upon satisfaction with things as they are as upon mental shrinkage from the effort involved in doing anything new. The important thing is that with so much sales resistance already in existence the educational planner must do as business does, advertise. His advertisements will be honest and genuinely helpful, of course, but just the same he must advertise if his teacher salesmen are to have the opportunities they deserve.

It must never be forgotten by the educational leader in the smaller community that his people are carrying a tremendous burden in trying to support any kind of school financial program. If this burden is not to become too wearisome, these people must constantly be resold on the value of the task they have undertaken. Surely school publicity is essential to a continuing program of improving the community school.

The school administrator who embarks upon a program of better school publicity in a smaller town will find at least three powerful factors working in his favor, making the task not at all an insuperable obstacle.

One of the finest things about a school position in a small town is the fact that one can know so many constituents of that hazy generality, "the public," by their first names. The personal impressions made by the superintendent and by the teachers play no small part in determining the general attitude toward the schools and the ends they attempt to serve. No honest thinking and acting superintendent of schools will allow personal popularity to substitute for a good job well done, but certainly no wise leader will forego the golden opportunity to create respect for his work through creating respect for himself.

Authorities in the field of public relations for schools are agreed that

the best type of contact is that which is direct and personal. The small town educator is indeed fortunate that the very mores of his community make it possible for him and for his teachers to come in contact with practically every concerned person in a direct way. Visiting is still in style in most communities, an advantage that the school administrator cannot afford to pass by.

Whatever else may be true about the average small community, it is about the best little place in the state, if not in the nation. This home town pride seems to be a deep-rooted characteristic of the American people and it is a powerful factor that can be summoned to aid the educator who wants to build a better community with better schools.

Other favoring factors could be named but a public relations program that takes full advantage of the three just enumerated will be well on the way to success.

Avenues of Approach

Of all the avenues of approach to the people whom we want to reach, at least four seem worthy of mention because of their peculiar adaptability to the needs of a small town.

Wide reading of the current literature in the field of public relations contains one danger for the superintendent who wants to do a good job in a small town, namely, the expectation of too much from his local newspaper. The weekly or semi-weekly county newspaper can be a real aid to the alert superintendent, but only when he realizes that it is a country paper and not a metropolitan daily.

Some concrete suggestions are made for employing the local news columns, suggestions that have proved practically useful.

1. The editor is probably busier than the superintendent, since little money is available for hiring assistants and he appreciates all the help he can get. Full details in writing are preferred by most editors. Welcome is usually accorded fully writ-



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No school is too small or too large to solicit our keen interest. The picture above shows a Walrus installation in the domestic science department of a small town high school. Sometimes such schools must make certain rooms do double duty. Walrus is glad to help plan when that is the case. Free catalog on request.

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ten, ready to set news articles, particularly if the writer has followed the conventions established by the paper.

2. Publication day for a newspaperman is like commencement for a schoolman. Much good will is created by getting material in with plenty of time to spare and this good will aids in getting proper prominence for news about the schools.

3. "Names make news" is a familiar dictum of college journalism classes but in the small weekly newspaper names make the whole paper. News stories that mention names are usually well received and may be used when weightier articles are crowded out because of lack of space.

4. Feature stories, local anecdotes and news in the lighter vein are preferable to the staid, matter of fact presentation of serious subject matter. Someone has said that in a small town the paper merely serves to confirm what people have already heard, so something new is particularly appealing to the eyes of the readers.

5. It is hard to convince a country editor that people are vastly interested in athletic contests or in other gatherings arranged for the purpose

of raising money. He gives space in his paper to the announcements but he would much prefer something with a little more news value in it.

Many additional suggestions could be made but it is probably sufficient to point out that in the typical small town the schoolman who waits for the newspaper editor to come by and get the news is going to find that he soon has a mammoth stack of uncalled for articles.

A second avenue of publicity peculiarly open to the person who works in a smaller community is the school entertainment. Granting that the usual school entertainment tends to exploit children for the sake of dollars, it remains true that some sort of impression of the local schools is being gained by every citizen who buys a ticket and attends in self-defense.

Commercial producers of plays and entertainments on a percentage basis know that the foundation rule for a successful "gate" is to have as many children as possible appear in the production. It is too bad that the "gate" is often the only thing about the entertainment that is successful, for every such occasion offers a golden

opportunity for people to learn what this thing called education is trying to do.

The urban school may produce more elaborate entertainments, it may attract larger crowds to its affairs, but it cannot hope to reach even a small portion of its clientele through this medium. How fortunate, then, should be the lot of the small town principal who can still attract a potent portion of the entire community to his building and there seize the opportunity to interpret to these people the education they are buying for their children!

The annual graduation exercises offer a third avenue of successful approach in the usual smaller community, an avenue that is all too often so clogged up with trite speeches about dry nothings that it might be better designated as an alley rather than as a broad road.

It is encouraging to read of the increasing number of graduation programs that are using vital materials to interpret a vital school. However, a recent study indicates that at least in one state 90 per cent of the graduation exercises offered in towns with a population smaller than 5000 are pretty much the same as were held in the much beleaguered little red schoolhouses of a generation ago.

Probably the most neglected avenue in the small town approach to good public relations and probably the most valuable one so far named is the use of personal visitation by the school personnel. There can be no substitute for firsthand information and the persons best qualified to give firsthand information about the school are the teachers in that school.

In one small town with a school enrollment of 900, teachers made in one year a total of 3200 visits to the homes of the children enrolled in their classes. In personal terms this meant that the school ceased being a building in the minds of the parents and became a flesh and blood reality, a reality with problems and with people working on those problems.

The American small town needs better schools. It can be made to want better schools. Wanting better schools, it will be willing to support better schools, provided school administrators will furnish the factual basis for intelligent action.

As Others Say It

Compiled by JOHN G. ROSSMAN
Superintendent of Schools, Warren, Pa.

Education is a process of living and not a preparation for future living.

—JOHN DEWEY.

Pearls unpolished shine not.—JAPANESE PROVERB.

We are all catching our own fleas.—ROMER WILSON.

Wrong cannot afford defeat, but right can.—TAGORE.

I understand myself, but I do not approve myself.—AMIEL.

Manhood, not scholarship, is the first aim of education.—ERNEST THOMPSON SETON.

The happiness of men consists in life. And life is in labor.—TOLSTOI.

A mule cannot pull when he is kicking, and he cannot kick when he is pulling.—THOMAS J. WATSON.

Maturity? There is no such thing: we ossify in parts and get soft in others.—SAINTE-BEUVE.

Above all, we must stand shoulder to shoulder for the honor and greatness of our country.—THEODORE ROOSEVELT.

The teacher who is not physically tired at the end of the day may well doubt that he has done any teaching.—MORRISON.

If I had my life to live over again I would have made a rule to read some poetry and to listen to some music at least once a week.—DARWIN.



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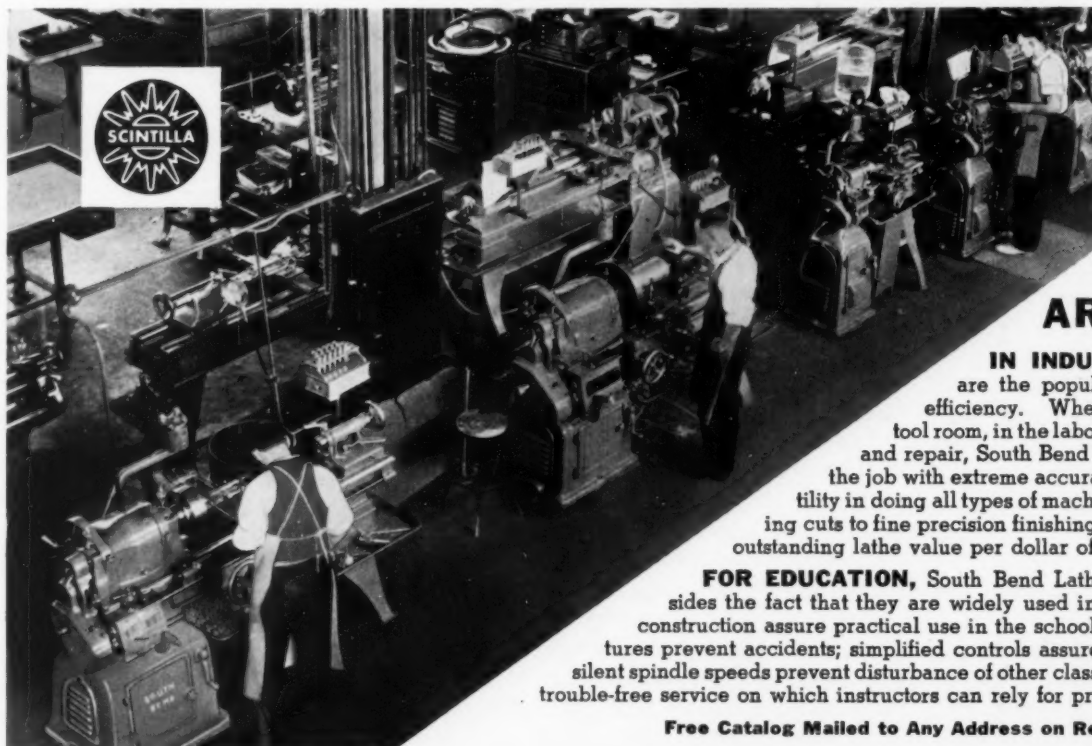


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Cooperative Faculty Control

EDWIN WAGGENER

Principal, Liberty School, Englewood, N. J.

THE philosophy of educational administration of the chief administrative or supervisory officer of any school reveals itself in a number of ways. One of these is the extent to which the teaching staff is organized to assist in carrying out a broad and functional educational program.

School administrators may be classified in three general groups, the characteristics of each group being typified by certain personality or character traits. In one group is found that person who acts as the dictatorial general issuing orders to a trembling and utterly subservient group of teachers; believes his mind capable of evolving all the necessary ideas for the good of the school; considers the suggestions of teachers as interference with the administration of the school; gives no recognition for superior work, taking such achievement as a matter of course, and, in all, assumes an attitude that is destructive to good mental health in the members of the instructional staff. Such an administrative officer may head a school which, on the surface, appears to be running smoothly, but rarely can professional growth and initiative develop in such an atmosphere.

Do Not Try Every Proposal

On the other extreme, we find a type of individual who is willing to assume relatively little responsibility. This administrator or supervisor sees no problems, hears of no problems and solves no problems. Every proposal, regardless of how impracticable, is accepted and tried out. This administrator is afraid to express an opinion. He is the "yes man" to everyone in the school, from the janitor up.

The type of administrative leader found in our better and more truly progressive schools is, of course, not of either of the foregoing extremes. He wants a cooperative type of school management and control in which the active cooperation of the instructional staff is sought. He welcomes constructive ideas. He recog-

nizes superior work. He is interested in the experience of his teachers as they carry out their part of the school program.

Growing out of the philosophy of cooperative management and control is the possibility of so organizing the faculty as to obtain a maximum amount of helpful cooperation in broadening and vitalizing the total school program. The organization which is explained here is doubtless in use in a variety of forms in many schools everywhere. It is, however, my feeling that talent among our teachers is submerged and is largely lost to the schools in which they work and that many excellent ideas are not brought to the surface because of a lack of an administrative setup to encourage the contribution to school administration of the best thinking of which teachers are capable.

Committee Setup for Faculty

The Liberty School at Englewood, N. J., has an average sized school faculty of 16 teachers. Our committee setup, which is working effectively, is as follows: the program committee, professional committee, publicity committee, publications committee. The principal is, of course, ex officio member of all committees. Examples of some of the activities of these committees follow.

The program committee plans and offers suggestions for any kind of program activity in the school. Constructive ideas for assembly programs are offered, following which a complete term of assembly programs is planned and scheduled. Proposals for professional performances are considered by this committee. The educational value of such performances must satisfy the committee before anything is scheduled. The committee prepares exhibits and programs for parents' groups.

The professional committee, after consultation with the teachers and

the principal, outlines a definite topic or problem for discussion at each faculty meeting. The problem is given careful thought in advance. Thought-provoking questions that grow out of the problem are listed and posted well in advance of the regular faculty meeting. Teachers are often selected to lead the discussion. The principal opens such meetings, rounding out the discussion and summing up the contributions.

A further example of work by the professional committee is that of carefully scanning our list of professional magazines as they arrive. The titles of articles of special interest and merit are noted, classified by subject and posted on our office bulletin board.

The publicity committee gathers school news of a wide range of interest. Considerable material is contributed through our news box, which is given a prominent place in the office where teachers cannot fail to see it.

Guidance in the school publication is furnished by our publications committee. Pupils are encouraged to contribute to the school publication. Each member of the committee assumes responsibility for collecting a certain type of material or for the contribution from different grades.

Conducive to Good Teaching

These are only examples of the kinds of committees that may be organized. Schools of different sizes and facing different problems may vary the cooperative procedures described here. We are convinced that such cooperation with the administration of any school will lead to a functional school program and to a general atmosphere that is conducive to professional growth and good mental health for the teaching staff.

Teachers must have the feeling of working with, not under the administration, if that final degree of effort, thought and cooperation necessary to unusual achievement is to be had.

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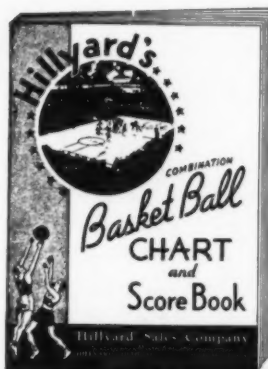
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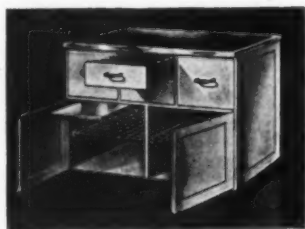
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Philanthropy in Public Schools

ERNEST V. HOLLIS

School of Education
College of the City of New York

MANY public school administrators dismiss the philanthropic foundation as an insignificant factor in the progress of public elementary and secondary education. For such persons the Carnegie, Rockefeller, Commonwealth and other chartered funds are merely sources of income for church and privately endowed colleges and universities. Apparently they do not understand the indirect but powerful influence of organized philanthropy.

From a rather comprehensive study* it was shown that 61 per cent of foundation gifts to education have gone directly to colleges and universities and that tax-supported institutions received only 8.7 per cent of the grants. Out of nearly a billion dollar total of foundation gifts to all causes, elementary and secondary schools have received only \$51,000,000 and, excepting the grants of the Peabody Education Fund, only a negligible fraction of this sum has gone to governmentally controlled and supported schools.

Do these facts support the generalization that the public school is outside the sphere of foundation interest and influence? Such a conclusion would be erroneous. The public school has been modified by the impact of organized philanthropy since the Peabody Education Fund began operation in 1867.

Indirect Benefits

The Carnegie Foundation for the Advancement of Teaching and the General Education Board influenced public education drastically in the early 1900's without directly giving a dollar to either the elementary or the high schools. Obviously, there was little apparent connection between giving a pension to a college professor or giving a sum to the

general endowment of his college and accrediting and otherwise reforming the high school. Yet it was through such far-removed grants that the foundations effectively worked for differentiating the elementary, secondary and college levels of education.

What could be more plausible than the necessity for defining a college as a condition for awarding a pension or an endowment gift? Entrance requirements were the heart of this definition and they could not be embodied without regulating the progress and graduation requirements of the high school. The Carnegie Unit for measuring high school achievement was then, in part, an outcome of the seemingly benevolent desire to pension worthy professors.

Aid for Qualitative Studies

The cast-iron and cold-storage qualities of the Carnegie Unit are still present to plague us, but it was a highly salutary device for bringing a semblance of order out of the chaos existing when it was formulated. To their credit it should be noted that as early as 1812 the foundations were pointing out the limitations of the quantitative unit and advocating supplementing it with qualitative standards. It is only within the present decade that our educational leadership has undertaken the introduction of qualitative standards into accrediting. The foundations have supplied \$203,000 to the six regional accrediting associations to aid the work. Recent issues of *The Nation's Schools* carried W. C. Eells' report of the qualitative secondary school accrediting recommendations of the Committee of Twenty-One of the six regional accrediting bodies. The recommendations for qualitative accrediting of colleges in the North Central Association have been published in a series of monographs by the University of Chicago Press. In-

dividual regional associations have had foundation aid in the more restricted qualitative studies they have undertaken.

The Carnegie Corporation and the Carnegie Foundation have jointly given \$205,000 and the Division of Enquiry has conducted an eight year study of the relations of secondary to higher education in Pennsylvania. By following a large group of beginning high school pupils through their college careers to placement, the study developed extraordinarily valuable record forms, standardized tests and other devices for measuring and recording the progress of the pupil. The program not only demonstrates the futility of both the Carnegie Unit and the college credit hour but offers usable techniques and devices as substitutes. Dr. William S. Learned's report of this epochal experiment is distributed by the foundation under the title of "The Student and His Knowledge."

Foundation grants to experimental and demonstration schools support the thesis that by indirection they have profoundly influenced public elementary and secondary education.

Apply Sound Technics

Public schools tend to incorporate into their programs all that is demonstrated to be educationally sound and financially feasible. In time they may be expected to adapt and adopt portions of the commendably bold experiment of the Progressive Education Association. Through the use of more than \$200,000 of foundation funds, 30 selected progressive schools, released from hampering entrance requirements by 250 of the leading colleges, are experimenting with curriculum materials, methods and measuring devices designed to improve the quality of secondary education and more closely articulate it with everyday life.

To cite another example, the General Education Board's grants, aggregating \$6,000,000, to build, equip, en-

*Hollis, Ernest V.: *Philanthropic Foundations and Higher Education*. New York: Columbia University Press, 1938.

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VITALIZE LESSONS WITH BLACKBOARD AND CHALK

dow and support the Lincoln School of Teachers College, Columbia University, have made possible newer educational practices that are in use in every reasonably progressive public school in the land. Possibly only the student of such trends is fully aware of the contributions that the Lincoln School and other experimental schools have made to textbooks, syllabuses and courses of study in various subjects.

It is not to be inferred that these offerings to the public schools have been unalloyed blessings or that they

have been the only source of progress. Foundation projects merely claim to be one of the progressive forces. It is probable that they could not have exerted significant and widespread influence except through concentrated grants in a few strategic centers. In the last quarter of the nineteenth century the Peabody Fund tried the practice of grants to city school systems and discarded it in favor of grants to teacher training and to professors and supervisors of secondary education.

The General Education Board

adopted the Peabody Fund practice in 1905 and up to 1935 it had given \$940,406 to support professors of secondary education in state universities "whose main and principal work shall be to visit favorable locations and endeavor to organize in such places public high schools in accordance with the laws of the state; to endeavor to create in such communities a public sentiment that shall permanently sustain such high schools." Possibly no similar sum of money spent by foundations in the field of public education has brought such unalloyed and lasting benefits.

The space allotted this article limits the further citation of examples that show how foundations influence both for weal and for woe without directly making grants to the schools. Since the Vermont survey in 1913, foundations have financially and otherwise participated in state and city school surveys that have markedly modified school practices. Further, they have supported the research that provided the standardized tests, score cards and similar devices and technics used in conducting school surveys.

The last example of foundation participation in such a survey is the \$500,000 grant of the General Education Board for a thorough study of public education in the state of New York. The findings are not fully available to the public as yet, but it is reasonable to expect that the study will modify every phase of education in the state and that its influence will later extend over the country. The \$800,000 grant from the same foundation for the work of the National Youth Commission of the American Council on Education supports a study that promises to be a material aid to the solution of the youth problem that confronts every secondary school teacher and administrator.

Philanthropic foundations should be reckoned as a force that has influenced and is influencing the quality, extent and direction of public education. It has no quarrel with the foundation policy that concentrates grants in strategically situated agencies that, in turn, make the benefits available to all schools. The leaders of public schools should study and understand the relation of foundations to their schools.

Qualifications for Bus Drivers

BASIC qualifications prescribed by the Kentucky State Board of Education for consideration of local boards of education in employing school bus drivers are enumerated in an educational bulletin published by the state department of education.

1. *Age:* The driver should not be less than 21 or more than 60 years of age. Thirty-three states require drivers to be 21 years of age to drive public motor buses. Ninety-seven per cent of the drivers of public buses are from 21 to 45 years of age.

2. *Health certificate:* Drivers should have no communicable disease. They should have normal use of body as to use of both hands, both feet, both eyes and both ears. They must present a certificate for such from a reputable physician, after careful examination by him, annually, before beginning each year's contract.

3. *Vision:* Drivers must present, annually, a certificate from a reputable eye doctor, after a careful examination, showing that their vision is suitable for bus driving.

4. *Morals:* Drivers cannot be employed or kept in service if they use intoxicating liquors. They must not use tobacco while on the bus or on the school grounds. They must refrain from use of profane and indecent language.

5. *Character:* Drivers must be fairly reliable and of good reputation. They must be persons children will respect and whose actions should result in constructive influence

over the pupils; they must be capable of maintaining order.

6. *Experience:* A driver shall satisfy the employer of his ability to drive a school bus by citing driving experience and by giving reliable references.

7. *License:* He must hold a driver's license. No one should be employed as a school bus driver who has had a driver's license revoked.

8. *Contract:* He must sign the driver's contract furnished by the school board, which covers regulations for drivers furnished by school authorities.

9. *Personal appearance:* Drivers should be required to keep clean and neat while operating a school bus.

10. *First aid:* Business drivers should be expected to retain a reasonable degree of efficiency in the use of first aid treatment. They should be regularly instructed concerning the best way to render first aid by someone thoroughly qualified to give instructions. The American Red Cross advises that it is prepared to train all bus drivers and issue first aid certificates to all successful applicants. This service can be obtained by applying to the local chairman of the Red Cross. The complete Red Cross course consists of 10 lessons of two hours each.

11. *Driving habits:* An examination to determine the driving habits of bus drivers and applicants is an important measure to prevent accidents.

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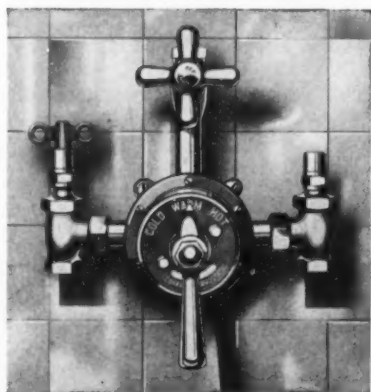
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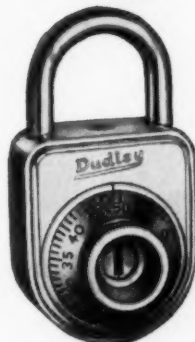
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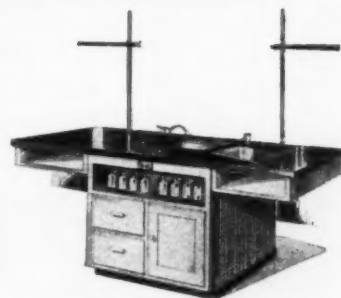
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The School Cafeteria

CONDUCTED BY
MARY DeGARMO BRYAN

Designed for Today

LAURA C. FAWCETT

Supervisor of Home Economics
East Orange, N. J.

IN DESIGNING the Clifford J. Scott High School, East Orange, N. J., to accommodate approximately 1000 pupils, the cafeteria was so planned that it could be used for many types of meetings, large or small, school or community. Located on the ground floor, half a flight down from the main floor, it has a separate entrance and exit and can be closed off from the remainder of the building when used for some community or special school activity while school is in session. If the room is used for school dances or parties in the evening, it is not necessary to open the entire school building. The kitchen, counters and dish-washing space are in separate rooms. The entire department is acoustically treated and air conditioned.

Kitchen equipment and the cafeteria counters are of stainless steel. The best labor saving devices on the market have been included, with the realization that these mechanical machines have man power and pay for themselves many times by their speed, efficiency and durability. The accompanying floor plan shows the layout. The rooms are light, colorful and attractive and, even when

filled with children during the lunch hour, have that uncanny quiet characteristic of soundproofed rooms.

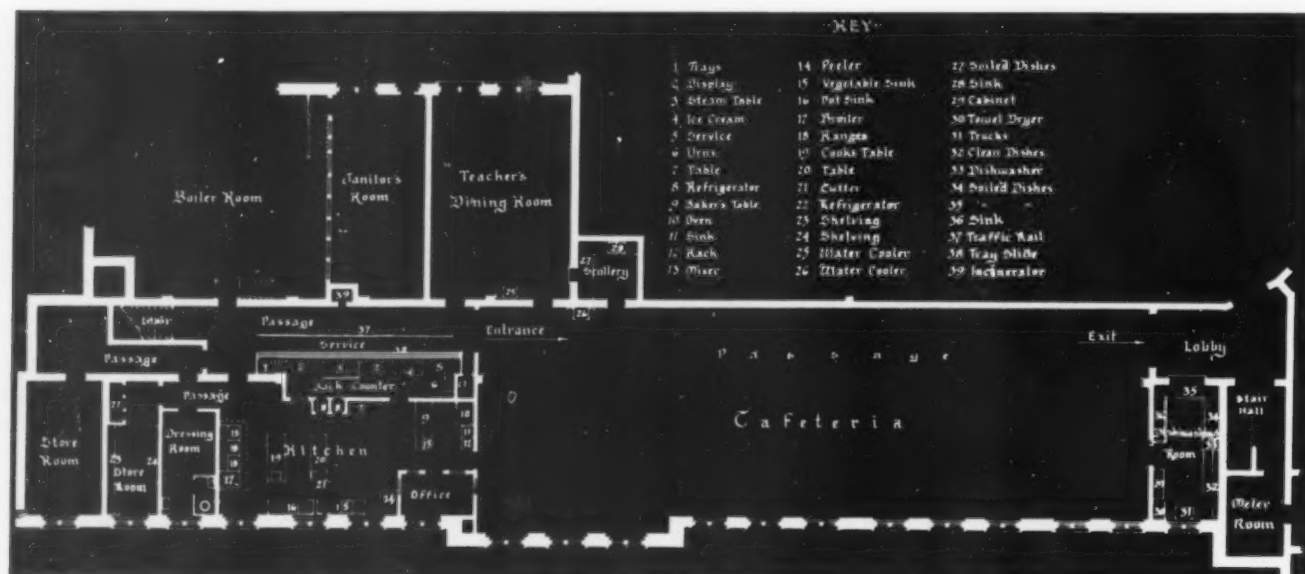
Aside from the original equipment, which was included in the cost of building the school, the three East Orange school cafeterias are self-supporting, paying all salaries and for all repairs and replacements and new equipment as well as food costs. They are under the supervision of the home economics department with a trained manager in each cafeteria. The many problems arising in the average suburban community from year to year, such as unemployment and fluctuating living costs, often require the proverbial "nip and tuck" in making ends meet. The years have proved that even the fairly small school cafeteria can be attractive, serve good food and be self-supporting.

The three cafeterias at East Orange employ 40 women workers and a few pupil helpers, the latter working for a part of their lunch periods and receiving wages in cash, which they may use for the purchase of luncheon, or not, as they wish. All workers have physical examinations reg-

ularly, given by the school physician. Workers wear white uniforms, which are supplied and laundered at the expense of the cafeteria. Women workers remain with the system for long periods, several of the present staff having been in its employ for twenty years.

In planning the daily menus, consideration is given to several important factors. First, the pupil eats only five of his 21 weekly meals in the school cafeteria. Second, East Orange is more or less a commuter community, so that in the average home the main meal of the day is at night. Theoretically, breakfasts in this kind of a community are substantial, too, but actually many boys and girls of today do not eat breakfast at all. There are also a number of homes in which both parents work and have luncheon at their places of employment, in which case the high school pupil may make his noon meal his dinner and for him there must be substantial food at small cost.

Frequently, the cafeteria managers cooperate with homes in carrying out orders for special diets, most



Above: Kitchen and cafeteria plans, Clifford J. Scott High School, East Orange, N. J., Behee & Krahmer, architects.



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Canisius High School Buffalo, N. Y.
Colgate University Hamilton, N. Y.

often diabetic diets. The seasons of the year demand variations in the menus also. It is important, too, that there always be one good, satisfying, nourishing dish for 5 cents for the child who may be hungry but who has only a nickel. Boys normally have a weakness for ice cream. Girls, during the last few years, have been doing amateur dieting, which is difficult to control.

Every day of the school year, fresh fruit and green vegetables, egg and milk dishes and roasted or broiled meat are on the menu. There is a soup every day which sells for 5 cents, regardless of cost. Candy and packaged crackers are never sold. Some years ago milk chocolate of a good brand was sold, but it was found that many boys and girls were eating chocolate only and too much of it. Through the high school paper, pupils were warned that if this continued the chocolate would be taken away. No attention was paid to the warning and eventually all chocolate was taken out, much to the indignation of the pupils.

Candy is a good money-maker for cafeterias as it requires no labor and there is a substantial profit. As such a profit would be a great aid in keeping above water financially, it is reported with pride that the East Orange school cafeterias have been able to operate for a great many years without candy sales.

Food habits of girls and boys have improved during the last decade. There is, of course, a younger generation of parents who are more food conscious. Also, it is probable that hygiene and health education, biology and home economics as they are taught in our schools today have influenced the boys and girls themselves. For example, there was a time when spinach, carrots or cabbage just did not sell in the cafeterias. Today, if spinach is to be on the menu for just one day in the high school cafeteria, it is necessary to buy 2 bushels. The high school also uses a sack of potatoes a day, sells about 400 bottles of milk and on a chilly day sells 40 quarts of soup. In general, pupils choose food well. If they take an occasional flyer on a favorite dessert and eat a double order, that merely proves that they are normal young people.

Among those young people who have been accustomed to foreign

Monday	
Tomato bisque .....	.05
Roast beef and potato .....	.20
Welsh rabbit .....	.15
Fresh vegetable plate .....	.15
New peas	
Buttered beets	
Stuffed potato	
Italian spaghetti .....	.05
Ham sandwich .....	.05
Lettuce sandwich .....	.05
Fresh fruit salad .....	.15
Egg salad .....	.15
Strawberry shortcake .....	.10
Butterscotch pudding .....	.05
Fruit cup .....	.05
Ice cream .....	.05

types and preparations of food, it is interesting to observe the growth of liking for American foods. Eventually, these pupils become good customers. It is not unusual to have pupils ask for recipes to take home. In two generations of children we have given out hundreds of recipes.

Many factors influence business in the cafeterias. The average child is given a weekly allowance for all school expenditures including luncheon. The school paper, concerts, dues, dances, as well as a popular movie in town, influence the amount of money spent for luncheon. Also, in as small a matter as the school luncheon, some boys and girls are poor financiers. On Monday and Tuesday they spend heavily, moderately on Wednesday and go lower on Thursday and Friday.

In order that some idea may be gained of the food served to the pupils in each school, the menus for a week are given. The managers, the cooks and most of the workers were trained in the East Orange High School cafeteria and transferred when the other two schools were opened. Therefore, policies are the same, recipes are the same and, with the variations that are occasionally necessary, menus are the same.

Food is purchased in part locally and in part from well-known wholesale firms. Milk and cream are divided among several dealers. Bakery products, that is, bread and rolls, are purchased from three bakeries.

The following foods are served every day for 5 cents each: milk (half pint bottle), nourishing soup, freshly squeezed orange juice, tomato juice, cocoa, two rolls and butter, fresh fruit.

Tuesday	
Vegetable soup .....	.05
Chicken fricassee with biscuit .....	.20
Brown stew .....	.15
Fresh vegetable plate .....	.15
Fresh asparagus	
Carrots	
Fresh lima beans	
Spanish rice .....	.05
Egg and bacon sandwich .....	.05
Lettuce sandwich .....	.05
Tomato salad .....	.15
Chocolate pudding .....	.05
Coconut cake .....	.10
Cherries .....	.05
Ice cream .....	.05
(Sundae .....	.10)

Wednesday	
Cream of pea soup .....	.05
Roast lamb and potato .....	.20
Baked hash .....	.15
Vegetable plate .....	.15
Grilled tomato	
Mushrooms	
Squash	
Escalloped potatoes .....	.05
Cheese and olive sandwich .....	.05
Pear salad .....	.15
Chicken salad .....	.15
Denver cream .....	.05
Apple cobbler .....	.10
Ice cream .....	.05
Fresh pineapple .....	.05

Thursday	
Scotch broth .....	.05
Meat loaf .....	.15
Spanish halibut .....	.20
Fresh vegetable plate .....	.15
Candied sweet potatoes	
Creamed celery	
Broccoli	
Home baked beans .....	.05
Olive sandwich .....	.05
Lettuce sandwich .....	.05
Pineapple and orange salad .....	.15
Tunafish salad .....	.15
Apple betty .....	.05
Macaroon cream .....	.05

Friday	
Vegetable soup .....	.05
Baked ham and potato .....	.20
Oyster fricassee .....	.15
Fresh vegetable plate .....	.15
Stuffed tomato	
Hubbard squash	
Spinach	
Macaroni and cheese .....	.05
Chicken sandwich .....	.05
Lettuce sandwich .....	.05
Fresh fruit salad .....	.15
Mixed vegetable salad .....	.15
Southern soufflé05
Fresh chocolate cake10
Baked apple05
Butterscotch sundae10

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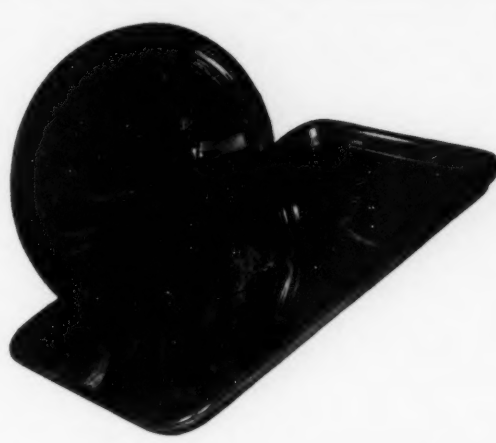
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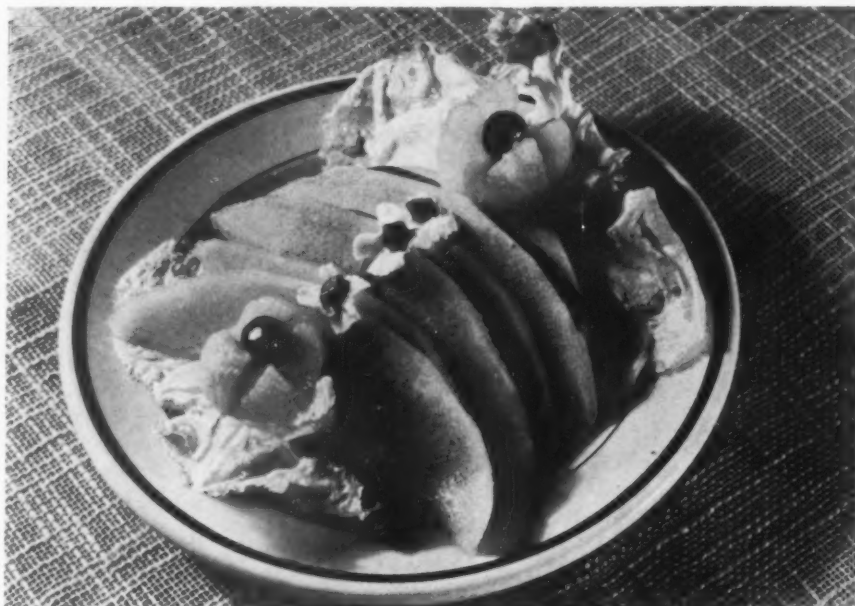
A BASIC premise for any efficient lunchroom system is the attitude and the aptitude of its personnel. To foster both has been a major aim of the director and managers of the Rochester school lunchrooms, and in the last two years a definite procedure has been developed to forward this objective.

The first step was a group meeting of the managers which the employes were invited, not requested, to attend. About eighty came to tea in the faculty dining room of one of the schools. The director discussed personnel in its relation to food service and an assistant superintendent stressed the importance on the part of the employe of personal interest in the individual customer. A review of several magazine articles relative to counter display and food service was given by one manager and a paper on the esthetic value of garnishes was read. Typewritten copies were given to the women to take home.

The high point of the meeting, however, was a double counter demonstration given by a committee of managers, the obvious purpose of which was to draw a sharp contrast.

On one counter careless dishing up of food, colorless and unattractive plate lunches, absence of garnishes, irregularity of portions, poorly cut pies and cakes and bad counter arrangement in general presented an extremely unattractive display.

On the other counter great care had been given to every detail. Whereas in the first exhibit, spinach had been carelessly served with a spoon, in the other it had been carefully served with a fork. In the first exhibit, creamed potatoes had been served from a deep casserole and, therefore, were badly mashed and broken; in the other, the same vegetable was served from a shallow pan and was in perfect condition. Solid spoons were used for one service and perforated spoons, for the



A salad making demonstration gave emphasis to attractive servings.

other. In one case no thought was given to selecting plates of the proper size; in the other, plates were chosen with regard to size of serving.

Subsequent meetings have been limited to more individual problems, the first of which was a demonstration of salad making. This included the care of all the salad materials used from the time they were delivered until they were actually made up into salads. One of the workers who has a particular knack for fixing pretty salads arranged both attractive and unattractive servings in order that the group might see the necessity for keeping the lettuce crisp, cup shaped and well drained. She achieved remarkable results by adding here and there a bit of color, a small leaf of lettuce or a few carefully chopped nuts.

More recently a committee of managers devised a sanitary score card for Rochester school lunchrooms. Although in actual use for only a short time, the score cards have already helped to raise the standard of cleanliness and sanitation in all the lunchrooms. Furthermore, the employes have been made "sanitation conscious."

The next problem considered was dishwashing. At a meeting of employes and managers, a representative of the Rochester health bureau

gave such a practical and scientific talk that for the first time some employes seemed to grasp the idea that here was a really important job and one that required intelligence.

One group meeting was devoted to a demonstration and discussion of sandwich materials and sandwich making.

Finally, a meeting was held especially for the chefs and cooks, with a demonstration on meat by an experienced meat cutter.

In addition to these activities, committees have prepared two booklets, one outlining the objectives of the department and setting forth a philosophy of school lunchrooms and an analysis of each individual job, the other dealing with lunchroom procedure.

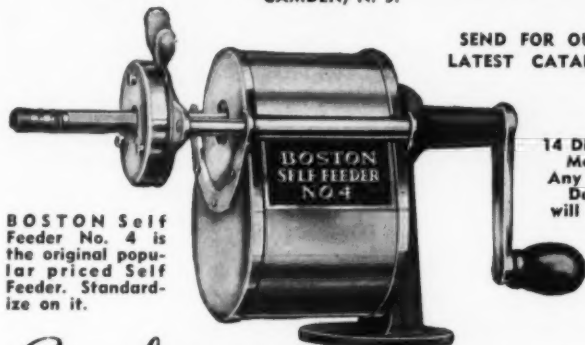
Experience to date has shown that the procedures outlined have tended to supplement, to some degree, the inadequate training of employes; to bring to the foreground individuals with capacity for advancements; to supply the help and knowledge necessary for such promotion, and to stimulate interest in the work of the organization as a whole. What often appears to be a lack of interest on the part of a worker is in reality an attitude arising from routine work done without sufficient stimulation or inspiration.

*Good Bye—
Mr. Whittler*



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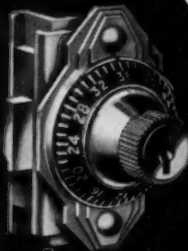
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Vol. 25, No. 1, January 1940



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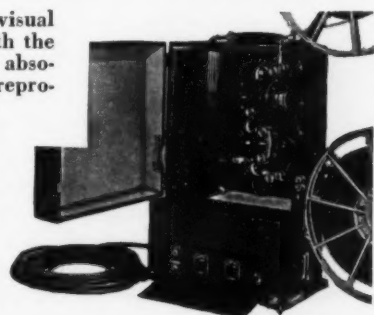
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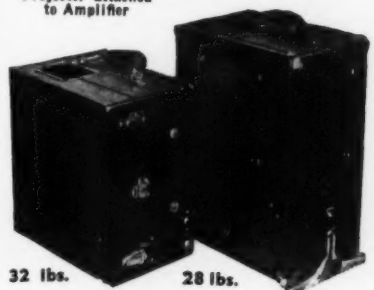
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BETTER PLANT PRACTICES



Making Most of Mopping

When floors are mopped, we were told the other day, the most efficient method is to use two mops and two pails—one mop and pail for applying the cleaner and the other mop and pail for rinsing the floor. Frequently, much of the surface dirt on the floors can be removed before mopping by brushing the floor with a hair pushbrush.

Here is the procedure as described step by step: First, put 1 pint of maintenance cleaning material in a pail, fill the pail two thirds full with water and stir well. Second, plunge the mop to the bottom of the pail at each application to obtain all the advantages of the cleaner. Third, mop in the usual way, about 50 square feet at a time. Fourth, rinse thoroughly with clean water and a clean, well-wrung mop. Fifth, should the floors be badly soiled, maintenance cleaning material may be sprinkled directly on them. The surface is then mopped and rinsed.

Talking About Shades

The subject of shades came up for discussion recently, in the course of which Donald E. Gavit of the board of education, Hammond, Ind., explained that in Hammond three types of shades and two kinds of shade cloth material are in use. Venetian blinds add to the appearance, he finds, and are satisfactory for use in the administrative offices and school offices. The problem of maintenance, however, is a factor in their application to classrooms. They are more difficult to keep clean and tapes and cords are likely to wear out in less time than does shade cloth. On the other hand, the question of light reflection is a point that may well be considered in the total cost, because venetian blinds, if properly used, probably cut down on the cost of electricity.

The double shade for ordinary classroom use is the most satisfactory. By this is meant the installation in which two shades are installed at the center point of the window, one being raised and the other lowered independently of each other. This installation provides for additional light without requiring the pupils to sit in the sun.

Gavit's experience in shade cloth material indicates that duck is most economical for use over a period of years. It does not fray at the edges and the

cloth can be removed from the roll, washed, mangled and replaced by the custodian. It does not tear as easily as other shade cloth, which is particularly likely to tear after a few years' exposure to the sun. Duck shades are still in use in some Hammond classrooms after fifteen to twenty years.

When it comes to testing, as Gavit points out, "only the largest school systems are able to set up their own testing equipment, and it is my opinion that if shade cloth is purchased from a reputable concern satisfactory wear can be anticipated. The school system can then, from its own actual experience, determine which shade cloth gives the best service.

"The kind of service a shade gives depends a great deal upon the care that the custodian takes of the building and of the shades in particular. Replacement will also depend upon what funds are available for the purpose. We find in our community that we cannot replace shades as often as we should like to, because of the necessity for keeping the tax levy within a prescribed limit. This does not necessarily mean that the shades we should like to replace are not fit for use but they may be stained and unsightly. I should say that under ordinary circumstances, new shades should be placed in buildings about every ten or twelve years."

Maintenance Tips

As a result of the custodian engineer's course offered by the Vocational School of Essex County, New Jersey, Ruel E. Daniels, district clerk and business manager, Belleville, N. J., has evolved many simple and economic methods of school maintenance.

For example, if you want to make your mops last longer, try tying a knot in the end of the individual strands. This seems to strengthen them and to produce less lint on the floor after mopping. Too, it will extend the life of the mop approximately 300 per cent and, contrary to the opinion of some, these knots in the end of the mop do not hinder wringing.

Here is another discovery. A hair broom tends to flip the dirt, whereas the part bristle broom pushes the dirt ahead. Also, if the shoulder of the broom handle is beveled before being

screwed into the stock, the handles are not so likely to break at this point.

The best method to remove gum is to use a substitute turpentine. It rolls off the surface and does not become sticky. Also, grease spots that prove stubborn may be handled successfully by using dry powdered cement, talcum powder and rotten stone.

Finally, the inside of a fresh loaf of bread will remove wax crayon marks from limestone.

When Buying Soap

Liquid toilet soap, according to the Federal Standard Stock catalog, should be of one type only, "a clear solution of pure vegetable oil potash (or potash and soda) soap, with or without glycerol or alcohol, suitably perfumed and free from all foreign matter. It shall quickly form a satisfactory lather and have no injurious effect and leave no objectionable odor on the skin.

"The material shall be a clear solution, free from objectionable odor, other than from coconut oil, and shall form a satisfactory lather.

"Total anhydrous soap shall be not less than the equivalent of 15 per cent potash soap.

"Total matter insoluble in alcohol shall not exceed 0.5 per cent.

"Free alkali calculated as potassium hydroxide (KOH) shall not exceed 0.05 per cent.

"Chloride, calculated as potassium chloride (KCl), shall not exceed 0.3 per cent.

"More than traces of sulphates and sugar shall not be present.

"All constituents shall be calculated on the basis of the original sample."

Again Paper Towels

Still the discussion on the use of paper towels in the school system continues. Now comes M. D. Teague, business manager, Greensboro public schools, Greensboro, N. C., who joins the others in describing his experiences. Cost of towels per high school pupil was .053 cents, it seems, while the cost per pupil in the elementary school was .082 cents. High school enrollment was 2172 and elementary school enrollment, 7218.

"We used 308 cases of paper towels during the school year 1937-38," Mr. Teague explains. "Fifty cases were used by high school pupils and 258 cases, in the elementary schools."



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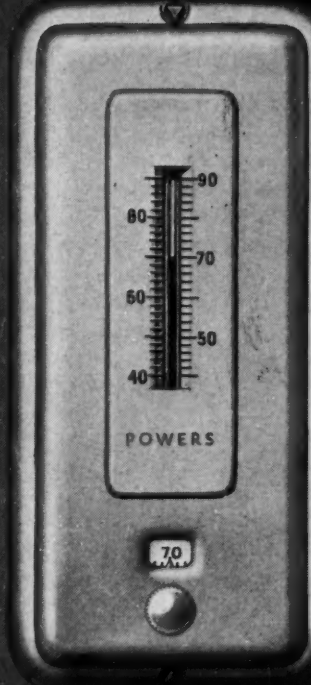


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News in Review

Program of Action

In its third report to the nation in two months, the American Youth Commission points out that nearly a million children of elementary school age are not enrolled in any school and that the schools in many sections are of poor quality.

As essential steps in remedial action, the commission recommends: (1) immediate improvement of school programs to meet modern objectives so as to prepare young people "for work, for use of leisure time, for home membership, for health and, above all, for citizenship in a democracy"; (2) reorganization of financial and administrative systems in local and state educational units, with increased federal aid to the states for education, and (3) more adequate provision to help young people whose parents are too poor to keep them in school (specifically, expansion of the student aid and work study programs of the N.Y.A. and C.C.C.).

It is observed that the improvements in instruction in the best schools have been slow to spread to the average school, and that the poor quality of the average school is due in part to extravagant forms of administration and in part to impoverished school districts. The A.Y.C. makes the following specific recommendations for the reorganization of the financial and administrative systems: (1) amalgamation of the 120,000 local schools districts in the national into "a few thousand at most"; (2) increased aid to local school districts by some states and better distribution of such funds by others "to decrease educational inequalities," and (3) federal aid to the states for education.

The first report of the commission, on unemployment of youth, made news because such men as Owen D. Young, Ralph Budd and Mathew Woll, vice president of the A.F. of L., all conservative business leaders, sponsored a recommendation apparently New Dealish in character. Simply stated, it is that the federal government should hire all unemployed young people of the nation (17 to 25 years old), putting them to work in part at production-for-use enterprises.

Basically much less radical than the first report, the second was still feature news, dealing with what political commentators predict will be a major political issue in 1940, addition of health insurance and medical care measures and appropriations to social security.

"A national health program should be directed to the needs of citizens of all ages," the commission points out, "but there may well be especial emphasis on youth. The schools can be of great service in providing health education and regular physical examinations and in giving physical training to all pupils.

"Public recreation programs, both physical and nonphysical, must be greatly expanded. They have been regarded too long as a public service in the luxury class."

Once more the commission flatly advocates federal aid on "a scale never before attempted in the country."

ADMINISTRATION

Proposed Merger

Two hundred fifty members of the parent-teacher association of Lincoln School, Columbia University, have deferred action on the proposed merger of Lincoln and Horace Mann schools made by Dr. Luther H. Gulick, director of the Institute of Public Administration.

Doctor Gulick had envisaged a "grand" experimental laboratory school, attuned to education's modern experimental needs, that would develop out of a merger.

He told the parents and members of the school staff in a special meeting in the school auditorium that their theories of experimental education, however laudable, were dreams not yet realized. The "grand" school, he said, would provide a rounded education for average boys and girls, some of whom might not attend college. At present the pupils in the two schools are drawn chiefly from children of the faculty of Columbia University and from the "economically and socially favored," whose families represent economically the upper 25 per cent of population.

Reasons given for recommending the merger were: (1) there is little evidence of difference in the purposes, philosophies or methods of the two schools; (2) the two schools have become distinct from Teachers College and Lincoln has almost "completely divorced itself from the college and the faculty," and (3) there are now financial difficulties arising from population shifts in the area surrounding the schools and from changes in family incomes, needs and interests.

Horace Mann School has a deficit of \$245,678. Lincoln School has a deficit

of \$87,175, which probably would exceed \$1,000,000 were it not for the income from the endowment funds provided by the General Education Board.

Doctor Gulick's three associates, appointed last spring by a parent committee headed by Nelson A. Rockefeller to survey the merger aspects involving the two schools, are: Frederick H. Bair, superintendent, Bronxville, N. Y.; Alonzo G. Grace, commissioner of education for Connecticut, and Floyd Reeves, director, American Youth Commission.

Commission on Citizenship

Prominent persons in all walks of life are serving on the Commission on American Citizenship organized in Washington, D. C., under the presidency of Rt. Rev. Msgr. Joseph M. Corrigan, rector of the Catholic University of America. Included on the committee are: Frank Murphy, attorney general; former president Herbert Hoover; Alfred E. Smith; Joseph P. Kennedy, ambassador to Great Britain; James A. Farley, postmaster general, and Dr. Nicholas Murray Butler, president of Columbia university.

Schoolbook "Trial" Staged

One of the liveliest gatherings in the history of the parent-teacher association of Cleveland School, Englewood, N. J., was the impartial inquest upon the textbooks of Dr. Harold Rugg, professor of education, Teachers College, Columbia University, held recently at the school.

Doctor Rugg was his own chief of defense against charges that the books are "unAmerican."

A delegation from the board of education and the American Legion post of the neighboring town of Haworth, N. J., led the prosecution, having advanced the charges. Officers of the P.T.A., while making it plain that they placed no stock in the charges, maintained neutrality. Englewood parents, led by a local rector, aided Doctor Rugg in replying to his accusers.

In opening his defense, Doctor Rugg explained the point of view from which he wrote his textbooks on the social sciences. His books, he said, had been designed with the single aim of bringing the realities of life into the schoolroom and not of keeping them out, as educators of the McGuffey Reader era had to do.

After this address Doctor Rugg's accusers cited quotations from his books for an hour and offered their own interpretations of them, interpretations that Doctor Rugg sought to prove were garbled or based upon misconstructions.

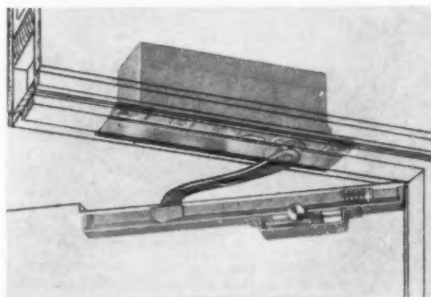
The meeting closed with prolonged boos for the Haworth delegation.



Elsie N. SAYS:

"VARIETY you must have in a line of door closers to take proper care of a modern educational plant. Door, draft and traffic conditions and protection of architectural design may call for overhead concealed, in-the-door, floor or surface type closers. LCN has them all, and LCN engineers are full-time specialists in door control problems."

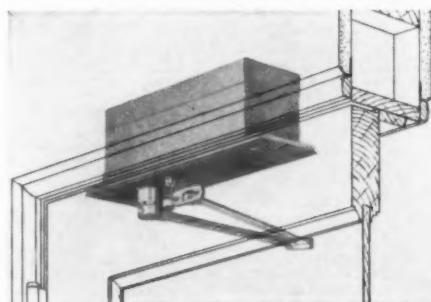
You Can Choose from LCN's 86 Types and Sizes for the BEST Control of Each Door



From the full LCN line of overhead, in-the-door and floor concealed and surface type closers for controlling all (swing) doors, but four representative kinds are shown here.

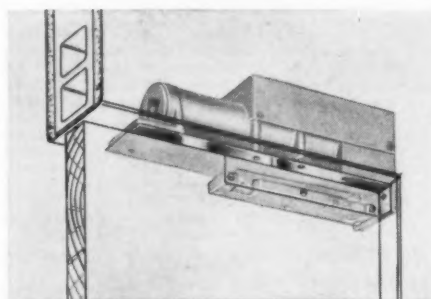
For Single Acting Entrance Doors—LCN 204 or 206

Completely concealed in the head frame and top of door (left) this closer employs the tried and proved LCN full rack-and-pinion checking mechanism with two-speed control for closing and latching, and the standard LCN coil spring "power plant". When door is closed no part is seen except knurled knob controlling hold-open device. In open position (shown) only the flat steel arm shows. Successfully used in prominent buildings from coast to coast.



For Unprotected Entrance Doors—LCN 504 or 506

Outswinging wooden entrance doors, unprotected by porch or deep reveal, are best handled by this closer (left) similar to the 204 or 206 except that a pair of exposed lever arms are used, which are kept on the inside of the opening.

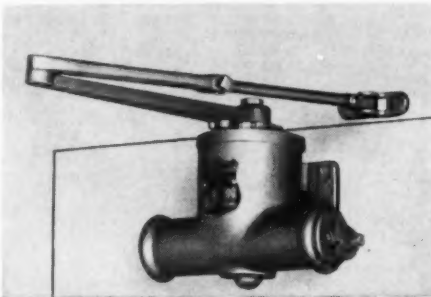


For Larger Double Acting Doors—LCN 444 or 466

Also completely concealed in head frame and top of door (left), this closer keeps door under full control throughout both swings, bringing it to gentle stop in center without flapping. No cutting of floors to install. Closer is hidden overhead, away from dust, floor dirt and tampering.

For General Utility—the LCN Standard Closer

Wherever the highest type of mechanical performance, with lowest possible cost of operation year after year, is desired, there is nothing to excel the standard LCN exposed door closer—outcome of a half century's experience in this one field. Six sizes, A to F. Whatever your door control problem, our skilled engineers can help to solve it in an entirely satisfactory way. Call our representative or write Norton Lasier Co., 466 W. Superior Street, Chicago, Ill.



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Swift and silent! Ample powered by special geared head ball-bearing motor to give maximum efficiency. Yet so perfectly balanced, a woman could run one all day without tiring. Supplied in 5 models and 4 sizes. Ask for free demonstration on your own school floors.



FREE BOOK!

Not mere sales propaganda . . . but a handy book of practical "do's" and "don'ts" by floor maintenance experts. Write for copy today. No obligation.



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On the Air During January

The following programs of particular interest to school people are arranged by the Columbia Broadcasting System and the National Broadcasting Company. All programs are listed in Eastern Standard Time. Watch listings for your local outlets.

Daily

12:30-1:15 p.m.—National Farm and Home Hour (NBC Blue).¹

Sunday

10:30 a.m.—March of Games, children's quiz game program, produced and directed by Nila Mack (CBS).

11:30 a.m.-12:00 Noon—Music and American Youth (NBC Red).

12:30-1:00 p.m.—On Your Job, vocational guidance program (NBC Red).

1:00-1:15 p.m.—Pilgrimage in Poetry, broadcasts from homes of famous American poets (NBC Blue).

January 7—Sara Teasdale, New York City.

January 14—Oliver Wendell Holmes, Boston.

January 21—Henry Wadsworth Longfellow, Cambridge, Mass.

January 28—James Russell Lowell, Cambridge, Mass.

2:00-3:00 p.m.—Great Plays (NBC Blue).

January 7—The Rivals, Sheridan.

January 14—William Tell, Schiller.

January 21—Ruy Blas, Hugo.

January 28—Rip Van Winkle, Jefferson.

2:00-2:30 p.m.—Democracy in Action, a series of programs designed to show the people of the United States how their federal government operates. Produced in cooperation with the U. S. Office of Education (CBS).

2:30-3:00 p.m.—University of Chicago Round Table (NBC Red).

3:00 p.m.—New York Philharmonic Symphony, John Barbirolli, conducting (CBS).

4:30-5:00 p.m.—The World Is Yours, auspices of Smithsonian Institution (NBC Red).

Monday

9:15 a.m.—American School of the Air. Frontiers of Democracy, produced in cooperation with the Progressive Education Association (CBS).²

2:00-2:30 p.m.—Adventure in Reading. Dramatizations of books and lives of famous authors, showing background of their works, by Helen Walpole (NBC Blue).

4:30 p.m.—Adventures in Science, guests interviewed by Watson Davis, director of Science Service (CBS).

7:15-7:30 p.m.—Science on the March (NBC Blue).

9:30-10:00 p.m.—Youth in Crisis, sponsored by the American Youth Commission (NBC Blue).

10:30-11:00 p.m.—National Radio Forum (NBC Blue).

Tuesday

9:15 a.m.—American School of the Air. Folk Music of America, produced in cooperation with the Archives of American Folk Songs of the Library of Congress, the Music Education Conference and the National Education Association (CBS).³

2:00-2:30 p.m.—Gallant American Women, dramatizations depicting the important part women have played and are playing in the activities of American life; produced in cooperation with the U. S. Office of Education (NBC Blue).

4:30 p.m.—Of Men and Books, reviews of current books and discussions of contemporary authors by Prof. John T. Frederick of Northwestern University (CBS).

9:30-10:00 p.m.—Edward Weeks, editor of *Atlantic Monthly*, explores the world of letters, with guest speakers (NBC Blue).

Wednesday

9:15 a.m.—American School of the Air. New Horizons, a chronological history of the lives of explorers and pioneers (CBS).⁴

January 3—Yankee Sailors Around Cape Horn (American Whaling).

January 10—Conquest of the Great Divide (Lewis and Clark).

January 17—Boom Days in the Fur Trade (Oregon Trail).

January 24—Wonderland in the Sierras (California).

January 31—Terror in the Arctic Seas (Arctic).

2:00-2:15 p.m.—Music for Young Listeners (NBC Blue).

4:30 p.m.—Highways to Health, medical talks for the layman, arranged by the New York Academy of Medicine (CBS).

9:30-10:00 p.m.—NBC Radio Guild (NBC Blue).

10:30-11:00 p.m.—Adventures in Photography,

amateur photography program (NBC Blue).

Thursday

9:15 a.m.—American School of the Air. Tales From Far and Near, presenting a selection of children's books of high literary quality (CBS).²

2:00-2:30 p.m.—Ideas That Came True, dramatizations of historic episodes which trace the development of American ideas and ideals, Dr. Rollo G. Reynolds, narrator (NBC Blue).

4:30 p.m.—So You Want to Be . . . ? Vocational program for children (CBS).

4:30-4:55 p.m.—Medicine in the News, sponsored by the American Medical Association (NBC Blue).

9:00-9:30 p.m.—Rochester Philharmonic Orchestra (NBC Blue).

9:30-10:30 p.m.—America's Town Meeting of the Air, George V. Denny, moderator (NBC Blue).

10:30 p.m.—Americans at Work, documentary broadcasts comprising dramatizations of occupations and interviews with people engaged in various vocations (CBS).

Friday

9:15 a.m.—American School of the Air. This Living World, history and current events broadcasts consisting of dramatizations and forums presented at various New York City high schools, with the pupils participating in the actual broadcasting (CBS).³

1:45-2:00 p.m.—General Federation of Women's Clubs, consumers' program (NBC Red).

2:00-3:00 p.m.—NBC Music Appreciation Hour, Dr. Walter Damrosch, conductor and commentator (NBC Blue).⁴

4:30 p.m.—Men Behind the Stars, legends of the constellations dramatized, Prof. William H. Barton Jr., executive curator, Hayden Planetarium, narrator (CBS).

6:00-6:15 p.m.—Torch of Progress, story of man's progress related by Dr. Edward Howard Griggs (NBC Red).

8:00-8:30 p.m.—Order of Adventurers, experiences of famous scientists and explorers (NBC Blue).

10:30-10:45 p.m.—Story Behind the Headlines, as told by Cesar Saerchinger. Broadcast in cooperation with the American Historical Association (NBC Red).

Saturday

10:15-10:30 a.m.—No School Today, safety program for children (NBC Red).

12:00 Noon—Milestones in the History of Music, presented by the Eastman School of Music under the direction of Dr. Howard Hanson (NBC Red).

12:00-12:25 p.m.—American Education Forum, current series devoted to outstanding experimental colleges in the field of general education with Dr. Grayson Kefauver of Stanford University (NBC Blue).

12:30-1:00 p.m.—Nila Mack's Let's Pretend, dramatic adaptations of fairy tales and original fantasies by the CBS director of children's programs. Roles enacted by cast of junior stock company of the air (CBS).

1:00-2:00 p.m.—What Price America, U. S. Department of Interior conservation program (CBS).

6:30 p.m.—What's Art to Me? Produced in cooperation with the Museum of Modern Art. Dramatizations and quiz programs on art in present day life (CBS).

7:00 p.m.—People's Platform, round table discussion of social, economic and political problems, Lyman Bryson, chairman (CBS).

7:30-8:00 p.m.—Art for Your Sake, dramatization of the lives and works of great painters by Dr. Bernard Myers, cooperation National Art Society (NBC Red).

10:00-11:30 p.m.—NBC Symphony Orchestra, Arturo Toscanini, conductor (NBC Blue).⁴

¹Except Sunday.

²The American School of the Air program will be heard in the Eastern Standard Time Zone only at 9:15 a.m.; in the Central Standard Time Zone at 2:30 p.m.; in the Mountain Standard Time Zone at 1:30 p.m., and in the Pacific Standard Time Zone at times that can be learned from the various local stations.

³NBC Music Appreciation Hour will be heard in the Chicago area over WCFL on Tuesdays from 2:00 to 3:00 p.m. (C.S.T.).

⁴The NBC Symphony under the direction of Arturo Toscanini will be heard in Chicago from 9:00 to 10:30 p.m. (C.S.T.) over WCFL.

RADIO

Third Broadcast Conference

Eight hundred leaders in educational broadcasting attended the third annual school broadcast conference in Chicago, December 6 to 8. Features of the conference included actual broadcasts and discussion groups of methods of utilizing radio in the schools.

AWARDS

Doctor Phelps Honored

Dr. William Lyon Phelps of Yale University has been chosen as the recipient of the 1940 American Education Award, it has been announced by the Associated Exhibitors of the National Education Association, the donors.

Presentation will be made by President Ben Graham of the A.A.S.A. during a program given by the Associated Exhibitors in the St. Louis Auditorium Tuesday evening, February 27.

For more than forty years Doctor Phelps has been associated in various academic capacities with Yale University. During these four decades he has passed through various stages of intellectual evolution, "from a sponsor of radical curricular innovations to a more conservative, but increasingly enthusiastic commentator on the progress of the human comedy." In recent years he has devoted his time to writing, both books and for periodicals.

Doctor Phelps' name on the bronze plaque which now hangs in the lobby of the National Education Association building in Washington, D. C., takes its place alongside an impressive list of American educators: James W. Crabtree, Susan M. Dorsey, Randall J. Condon, Philander P. Claxton, Albert E. Winship, Amos Alonzo Stagg, Walter J. Damrosch, Jane Addams, Lorado Taft, William McAndrew, Charles Hubbard Judd and Payson Smith.

MEETINGS

Kappa Delta Pi

The thirteenth biennial convocation of Kappa Delta Pi, national honor society in education, will meet at the Broadview Hotel, East St. Louis, Ill., Monday, February 26, to Wednesday, February 28, inclusive.

White House Conference

The date for the forthcoming second meeting of the White House Conference on Children in a Democracy has been advanced to January 18 to 20. Emphasis during the first meeting, held

last April, was on practical procedures rather than on eloquent statements of needs and aspirations. It is expected that the report being prepared by the planning committee then appointed, which will be a feature of the second meeting, will carry out this emphasis.

Junior High School Conference

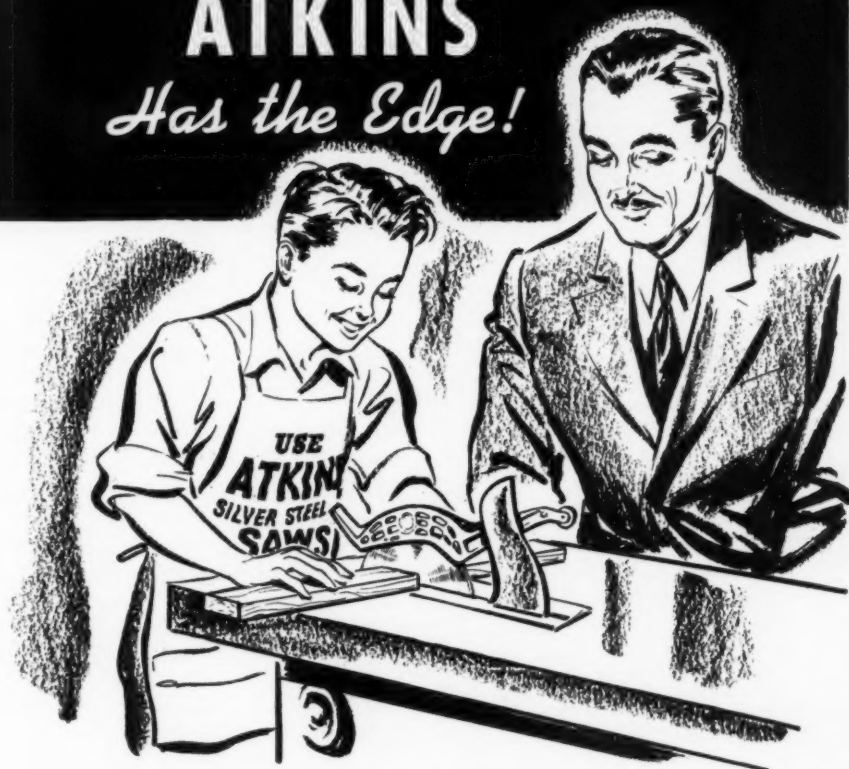
The sixteenth Junior High School Conference of New York University will be held on Friday and Saturday, March 15 and 16. The theme will be "Issues and Problems in Junior High School Education." The conference will include a general program on Fri-

day evening and numerous panel sessions on Saturday morning. An exhibit of junior high school classroom work will be a feature of the conference.

Plan Catholic Convention

The thirty-seventh annual meeting of the National Catholic Educational Association will open with a pontifical mass on March 27 in the Kansas City municipal auditorium, where the meetings of the association will be held. Headquarters for the two day convention, March 28 and 29, will be located at Hotel Muehlbach. The Very Rev. Daniel H. Conway, S.J., rector of Rock-

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"How Motion Pictures Move and Talk" is a new educational film produced by Bell & Howell, available, 16 mm. sound or silent, for free school showings! It traces a Hollywood "talkie" from raw film to finished picture. Mail coupon. Bell & Howell Company, Chicago; New York; Hollywood; London. Established 1907.

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Coming Meetings

Jan. 5-6—Ohio Education Association, Columbus.
Feb. 15-17—Oklahoma Education Association, Oklahoma City.
Feb. 15-17—Oklahoma Association of Negro Teachers, Tulsa.
Feb. 21-24—National Vocational Guidance Association, St. Louis.
Feb. 22-23—National Council of Teachers of Mathematics, St. Louis.
Feb. 22-24—International Council for Exceptional Children, Pittsburgh.
Feb. 24-29—American Association of School Administrators, St. Louis.
Feb. 29-March 1—American Association of Junior Colleges, Columbia, Mo.
March 13-15—South Carolina Education Association, Greenville.
March 14-16—North Carolina Education Association, Raleigh.
March 14-16—Georgia Education Association, Macon.

March 14-16—Alabama Education Association, Birmingham.
March 21-23—Tennessee Education Association, Nashville.
March 27-29—National Catholic Educational Association, Kansas City, Mo.
March 30-Apr. 1—Florida Education Association, place undecided.
April 3-5—Inland Empire Education Association, Spokane, Wash.
April 17-20—Kentucky Education Association, Louisville.
April 20—Massachusetts Teachers Federation, annual meeting of delegates, Boston.
April 29-May 3—Association for Childhood Education, Milwaukee.
April 29-May 3—American Association for Health, Physical Education and Recreation, Chicago.
June 30-July 4—National Education Association, Milwaukee.

hurst College, is chairman of the local committee on arrangements. Bishop Edwin V. O'Hara of Kansas City will be host to delegates.

The program will include general meetings and special sessions of the college and university, secondary school, school superintendents' departments and sectional meetings on teaching the handicapped pupil. It is planned to hold a large public meeting on one of the evenings during the period of the convention.

Film Releases

Fingers and Thumbs—The evolution of the hand and its uses from the fins of the fish to man's hands. Many interesting and unusual views of animals. 2 reels. 16 mm., sound. For rent or purchase. Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York., and Ideal Pictures Corporation, 28 East Eighth Street, Chicago.

Five Faces—Five nationalities live harmoniously on the small Malayan Peninsula—the British, the Dutch, the Chinese, the Malays and the Saki. Interesting views of how each of these nationalities lives in Malay and beautiful scenery. 3 reels. 16 mm., sound. For rent or purchase. Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York, and Ideal Pictures Corporation, 28 East Eighth Street, Chicago.

The Eyes—A film intended for use in elementary grades. Compares the eye with a camera and shows the action of the iris; focusing; pathway of light impulses to the brain. Also covers care of the eye; correct lighting for class work; proper use of glasses; removal of dirt from eyes. 1 reel. 16 mm., silent. For purchase. Teaching Films Division, Eastman Kodak Company, Rochester, N. Y.

VISUAL EDUCATION

Win 1939 Awards

"L'Île d'Orléans," a 16 mm. color film made by Judith and F. Radford Crawley, has been awarded the Hiram Percy Maxim Memorial Award for 1939. Honorable mention was given "An Apple a Day" by the same producers.

"L'Île d'Orléans" opens the door into the Isle of Orleans in Eastern Canada, where old French and Canadian folkways are lived placidly and with dignity. The highlight of the picture is the sympathetic, impressive study of a country Sunday, with the different churches, ringing of bells, country priests and the awakening of the countryside as its church-bound inhabitants wind over the simple roads.

"An Apple a Day" is the story of a Canadian apple orchard. The photography is brilliant and the action portrays every phase in the growing and marketing of apples until they reach the consumer.

Films in Review

LAND OF MEXICO. 1 reel, 16 mm. sound. For sale by Erpi Classroom Films, Inc., 35-11 35th Avenue, Long Island City, N. Y. Write to producer for address of nearest rental distributor.

One of a series of four films on Mexico recently released by the producer. The area of content allotted to this film may be judged from the three other titles: "People of Mexico," "Arts and Crafts of Mexico" and "Mexican Children." This unit of the series follows well the usual content of the geography text's chapter and, as such, it is more informative than stimulative. The content consists chiefly of a factual out-

line of the physical aspects of the country and of the nation's agriculture and market places.

Designed for upper elementary and junior high school grades, the film is technically excellent with regard to photography and sound.—*Reviewed by the Student Council Films Committee, Teachers College, Columbia University.*

FINANCE

Cleveland Defers Pay

Cleveland schools remained open for the last six weeks of 1939 although the schools were without operating funds for the period and school employees' pay had to be deferred.

The Cleveland board of education early in 1939 restored the heavy salary cuts of the depression years. It turned out that resources were insufficient to support the salary restorations.

The situation is better for 1940, but financial operation will not be easy, it is said, in view of the continuing obligation of six weeks' deferred salary.

PUBLICATIONS

Progressive Practices Featured

Schools that are participating in experimental curriculum practices of the eight year study of the Progressive Education Association were featured in the November issue of the *High School Journal*, published by the department of education of the University of North Carolina.

"Schools for Democracy"

"Schools for Democracy," a new book about public education in the United States, recently published by the National Congress of Parents and Teachers, was compiled by Dr. Charl Ormond Williams, director of field service of the N.E.A. and chairman of school education of the congress, with the assistance of Dr. Frank W. Hubbard, associate director of research of the N.E.A.

INSTRUCTION

Teacher's Trek at Denver

The twelfth annual Teacher's Trek was held at the University of Denver on December 26. The purpose of the meeting was to conduct discussions on personal and professional advancement in teaching for former students now in the teaching field. The theme of the conference was "The Teaching of Controversial Issues." This year the conference was under the direction of

Dr. A. E. Joyal, head of the department of education of the University of Denver.

Most Degrees Are Valueless

Most of the academic degrees awarded by universities were devised to meet the needs of medieval life and may mean nothing nowadays. Teaching positions and other vacancies throughout the country are being filled by degrees—not by men and women.

The foregoing comments on the value of scholastic awards were made in the annual report of the Carnegie Cor-

poration of New York, recently presented by its president, Frederick P. Keppel.

They supplemented the announcement that the corporation had made grants totaling \$4,846,126 during the fiscal year of 1938-39 to organizations in the United States and in the British dominions and colonies.

Open Government Laboratory

A laboratory of efficient government was dedicated on November 29 at the University of North Carolina at Chapel Hill. The modern plant of the



U. S. Roll Slicer installed in cafeteria of Austin High School, Chicago

WHY SLICE ROLLS BY HAND?

School cafeterias and dining rooms, where sliced rolls are served or sold, hail the U. S. Roll Slicer as a great labor and time saver.

It takes any shape or size rolls and buns, soft or hard, and cuts them entirely through or leaves a "hinge" on one edge. Just plug in any socket, turn the switch and it slices rolls as fast as you can feed them.

Compact, requires only 9 x 12" space on counter or table. A modern piece of equipment that saves hours of hand slicing and produces uniformly sliced rolls in any quantity.

IMPROVE ALL STEAKS 100%

The sensational new U. S. Delicator is far superior to any method of tenderizing, dicing, cubing, etc. Takes any length steak or boneless meat up to 1 1/4" thick, or you can knit together different kinds of meat and serve such delicious combinations as pork and veal, bacon and flank, suet strips and pork, etc.

Delicativized meats cook in 1/5 the time, which means retention of juices and flavor, as well as quicker service.

Write Dept. NS-1 for illustrated catalog with details about these modern machines and free demonstration in your own kitchen.



U. S. SLICING MACHINE CO.
World's Best Meat, Bread, Roll Slicers
and Steak Delicators
La Porte, Indiana

North Carolina Institute of Government was opened with Speaker William Bankhead of the U. S. House of Representatives as guest speaker.

NAMES IN NEWS

Superintendents

DR. FREDERICK J. MOFFITT, for thirteen years superintendent of schools at Hamburg, N. Y., and editor of the Chalk Dust page of *The Nation's Schools*, has announced that he will retire from the superintendency at Hamburg at the end of this school year. He has received numerous requests to reconsider his withdrawal as head of the village schools. Doctor Moffitt recently was elected president of the western zone of the New York State Teachers' Association.

ALBERT E. NIMTZ, for the last four years principal of Crawford High School, Crawford, Neb., has resigned to accept the superintendency at Hemingford, Neb. He succeeds LAWRENCE A. WIEMERS, who resigned after being promoted to a position in the Nebraska state department of education.

HOMER B. ASHLAND, superintendent of the Northeast School District, Washington County, Vermont, on January 1 became superintendent of schools for

the Newport-Derby School District, Orleans County, Vermont. He succeeded the late ERNEST A. HAMILTON.

DR. HARRY A. WANN, supervising principal of public schools at Madison, N. J., has been appointed to succeed WALTER B. DAVIS as superintendent of schools, Morris County, New Jersey.

THOMAS L. HINKLE, who received the M.S. degree in education at Bucknell University a year ago, was elected superintendent of schools at Hazleton, Pa., to fill the unexpired term of the late Dr. A. D. THOMAS. Mr. Hinkle formerly was principal of Grant Street School, Hazleton.

DR. H. G. DOWLING has been appointed superintendent of the new unified Tuscaloosa city and county school systems at Tuscaloosa, Ala.

G. H. CROWTHER, principal of the high school at Sharon, Pa., recently was named acting superintendent of schools at Sharon. He will handle both positions until the board elects a superintendent to succeed the late H. M. B. LEHN.

GEORGE H. COVEY, superintendent of schools, Bedford Hills, N. Y., for forty-one years, recently was honored along with several other members of his teaching staff who have served from twenty-five to fifty years in the Bedford Hills schools.

Principals

FRANK J. DAVIS has been named principal of du Pont Manual Training High School, Louisville, Ky., to succeed C. L. JORDAN, who resigned recently to take a position in another city. PAUL E. SPARKS is the new principal of the Emmet Field School, Louisville.

RALPH L. SHATTUCK, public speaking instructor at Lockport High School, Lockport, N. Y., for the last nine years, was appointed principal of the new Emmet Belknap Junior High School, Lockport, which will open early this year.

THOMAS HARTY, a faculty member of the grammar schools at Wallington, N. J., for seventeen years, has been named supervising principal at Wallington to succeed JOSEPH F. MORIARTY, who resigned his position to accept the superintendency at Garfield, N. J.

ROY LANGFELDT, athletic coach, has been named principal at Crawford, Neb., succeeding A. F. NIMTZ, who recently was elected superintendent at Hemingford, Neb.

MARSHALL W. DOWNING, principal of North High School, Syracuse, N. Y., has announced he will retire at the end of the school year in June.

KARP L. STOCKTON, a teacher at Los Angeles Polytechnic High School for the last three years, has been appointed

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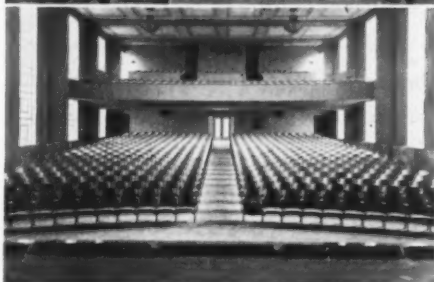
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principal of George Washington High School in Los Angeles. He succeeds the late THOMAS HUGHES. Mr. Stockton is a former principal of high schools at San Bernardino and Huntington Park, Calif.

In the Colleges

DR. WILLIAM W. COMFORT will retire as president of Haverford College, Haverford, Pa., after June 1940.

HARL R. DOUGLASS has been appointed director of the college of education, University of Colorado. He will assume his new duties in March 1940. Doctor Douglass is at present chairman of the division of teacher training of the University of North Carolina.

LUCIUS A. WHIPPLE, executive director of the Pawtucket and Blackstone Valley Community Chest since 1934, has been appointed president of the Rhode Island College of Education. Mr. Whipple, former principal of Pawtucket High School, will succeed Dr. JOHN L. ALGER, who retired as president last June.

DEAN HENRY W. HOLMES, who has been head of the Harvard University Graduate School of Education since its founding in 1920, has resigned to become chairman of Harvard's new University Committee on Educational Relations. This committee was appointed to provide for placement in other schools and colleges of the teachers that Harvard cannot use. Dean Holmes will be succeeded in his post as head of the school of education by PROF. FRANCIS T. SPAULDING.

CLINTON E. CARPENTER, director of teacher training at Fitchburg State Teachers College, Fitchburg, Mass., has been appointed president of Worcester State Teachers College at Worcester, Mass. He succeeded Dr. WILLIAM B. ASPINWALL when the latter's resignation became effective December 31.

DR. FRANKLIN H. McNUTT, director of the division of instruction in the Ohio State Department of Education, will become head of elementary education at Teachers College, University of Cincinnati, on February 1.

RAYMOND P. SLOAN, managing editor of The NATION'S SCHOOLS, has been elected to the board of trustees of the Long Island College of Medicine, it has been announced by Dr. F. L. BABBOTT, president of the college.

Deaths

DR. A. D. THOMAS, superintendent of schools at Hazleton, Pa., died recently from a heart attack.

WALTER S. KNOWLSON, principal of Poughkeepsie High School, Poughkeepsie, N. Y., from 1905 to 1910, died November 20. For twenty-six years he was a teacher at Erasmus Hall High

School, Brooklyn, N. Y. He retired in 1926.

THOMAS E. HUGHES, 59, principal of George Washington High School, Los Angeles, died suddenly of heart disease recently.

MARY C. HUGHES, who served forty-seven years with the public schools of Albany, N. Y., prior to her retirement in 1936, died recently.

A. L. REYNOLDS, 55, former state representative and for twenty-five years a teacher and superintendent in Wayne

and in Stark counties, Ohio, died recently of heart attack. For the last seven years he has been teaching at the consolidated township school at Greenville, Ohio.

Miscellaneous

FRANK S. HALE, who has been an instructor in the Schwab Vocational School at Homestead, Pa., for the last thirteen years, has been appointed director of the vocational school recently constructed at Charleroi, Pa.

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REORGANIZING SECONDARY EDUCATION. Prepared by V. T. Thayer, Caroline B. Zachry and Ruth Kotinsky for Commission on Secondary School Curriculum. New York: D. Appleton-Century Company, 1939. Pp. xv+483. \$2.75.

Progressive point of view in the reorganization of secondary education is extensively presented in an arresting but functionally sound manner. Highly recommended.

WOMEN AT WORK — A TOUR AMONG CAREERS. Published by the New York Career Tours Committee. Pp. 96. \$1, in New York area; \$1.15, elsewhere (Paper Cover).

Here is an interesting summary of the growth of women's activities in the professional, business, political and industrial fields during the twentieth century, highlighted by five of America's eminent women writers: Ida M. Tarbell, Dorothy Canfield Fisher, Inez Haynes Irwin, Mary R. Beard and Margaret Culkin Banning; illustrated by seven of America's foremost women photographers, and with 74 women of

outstanding achievement as honorary editors. Individual pictures are presented of the various fields in which women are active. Thus we have a picture of dietetics, teaching and school administration, as well as many other careers.

THE SCHOOL AUDITORIUM AS A THEATER. By Alice Barrows and Lee Simonson. Bulletin 1939, No. 4. Washington, D. C.: U. S. Government Printing Office, 1939. Pp. v+51. \$0.10 (Paper Cover).

Discussion of the adaptation of the theater to school needs presented in attractive style by an eminent theatrical designer and a specialist in school plants. This bulletin should be valuable to architects, superintendents, principals and educational designers.

JUGGERNAUT. The Path of Dictatorship. By Albert Carr. New York: The Viking Press, 1939. Pp. xxi+531. \$3.

From Richelieu to Hitler, 17 carefully selected dictators of both large and small dimensions pass under the laboratory analyses of this social scientist who attempts to show the condi-

tions that created them, the technics that made them and the ultimate results of their work—in short, to establish a historical principle of dictatorship. Whether one accepts the fundamental thesis underlying this work or not, the descriptions of the dynastic, revolutionary and crisis-men dictators make fascinating reading.

DEMOCRACY. Today and Tomorrow. By Eduard Benes. New York: The Macmillan Company, 1939. Pp. xiv+244. \$3.

"I absolutely deny the possibility of the coexistence of these two contrary regimes—democracy and dictatorship. . . . I do not fear for the future of democracy. . . . Modern human civilization cannot be destroyed. . . . The human spirit, in its great creative power, will continue its great creative work." The optimistic beliefs of this Czechoslovakian leader may be thus summarized from his most significant contribution.

THE NEW DEMOCRACY AND THE NEW DESPOTISM. By Charles E. Merriam. New York: Whittlesey House, McGraw-Hill Book Company, 1939. Pp. viii+278. \$3.

Significant and timely analysis which concludes that: "The modern long-time trend is in the direction of democracy. Pointing this way are the

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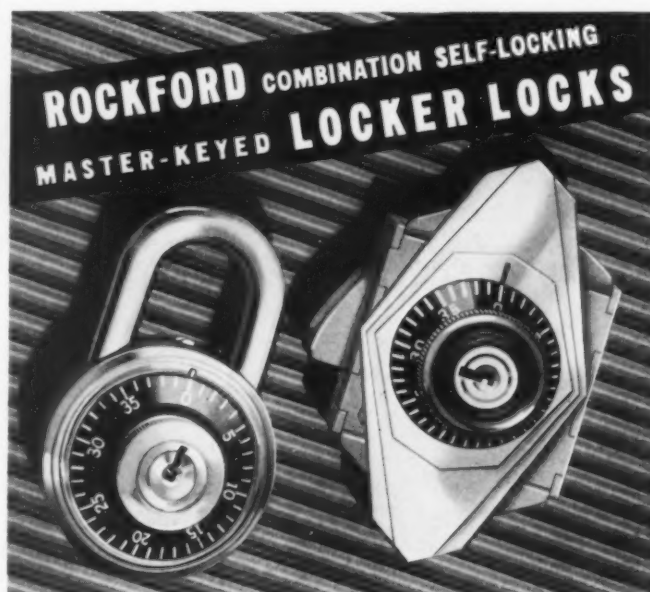


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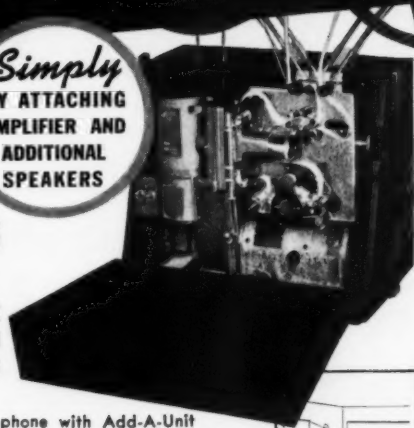


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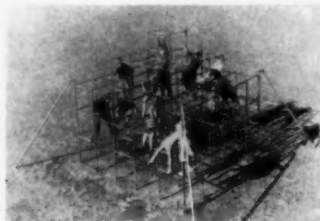
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MODERN PHILOSOPHIES OF EDUCATION.

By John S. Brubacher. New York: McGraw-Hill Book Company, 1939. Pp. xiv+370. \$3.

Even those intensely practical educators who fervently dislike theory will be surprised at the valuable and practical information offered by this closely written study, which presents different

approaches to the purposes of education.

THE COLLEGE CHARTS ITS COURSE. *Historical Conceptions and Current Proposals.* By R. Freeman Butts. New York: McGraw-Hill Book Company, 1939. Pp. xvi+464. \$3.

Well-balanced treatment of the fundamental conflict in American advanced education between the aristocratic academic and the democratic social influences.

Just Off the Press

DAILY DRILLS FOR BETTER ENGLISH. By Edward H. Webster. Yonkers-

on-Hudson, N. Y.: World Book Company, 1939. Pp. xi+415.

HOSPITAL SCHOOLS IN THE UNITED STATES. By Clele Lee Matheison. U. S. Office of Education, Bulletin No. 17, 1938. Pp. vii+79. \$0.15.

WORKBOOK FOR THE MACMILLAN HANDBOOK OF ENGLISH. By John M. Kierzek. New York: The Macmillan Company, 1939. Pp. vii+121. \$0.60 (Paper Cover).

HUMAN DYNAMITE. *The Story of Europe's Minorities.* By Henry C. Wolfe. *Headline Book, the Foreign Policy Association.* New York: Silver Burdett Company, 1939. Pp. 96. \$0.25 (Paper Cover).

MEASUREMENT OF EDUCATIONAL PROGRESS. By Lester E. Wiley and A. McBroom Wiley. Under direction of Ray G. Wood. Columbus, Ohio: State Department of Education, 1939. Pp. 80. (Paper Cover.)

THE SCHOOL JANITOR. By N. E. Viles. Nashville, Tenn: Interstate School Building Service, 1939. Pp. 19. (Paper Cover.)

SUMMER SECONDARY SCHOOLS. Edited by John R. Emens. Detroit, Mich.: Board of Education, 1939. Pp. 61. (Paper Cover.)

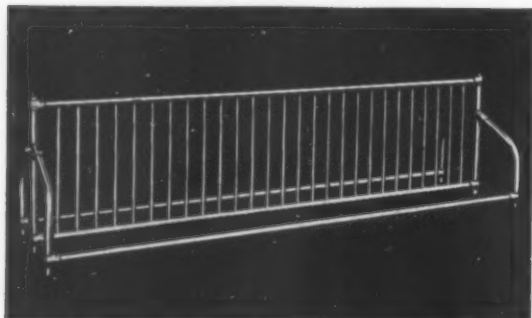
BILLY BERK, *A Berkshire Pig.* By John Y. Beaty. Pp. 64. OLD ABE, *A Lincoln Sheep.* By John Y. Beaty. Pp. 64. RING, *A St. Bernard Dog.* By Nena Wilson. Pp. 64. SHENSHOO, *A Moose.* By Wallace Kirkland. Pp. 64. Chicago: Follett Publishing Company, 1939. Cello-Buck Covers, \$0.60. Flexo Covers, \$0.15.

LANGUAGE ARTS. *Including Reading, Literature, Ninth Grade Grammar and Composition.* V. D. Bain and D. A. Emerson, Editors. Salem, Ore.: State Department of Education, Rex Putnam, Superintendent, 1939. Pp. 204. (Paper Cover.)

IOWA SILENT READING TESTS: NEW EDITION. By H. A. Greene, A. N. Jorgensen and V. H. Kelley. *Elementary Test, Forms Am and Bm.* (Per package, net \$1.50; specimen set, postpaid \$0.25) *Advanced Test, Forms Am and Bm.* (Per package, net \$1.60; specimen set, postpaid \$0.35.) Yonkers-on-Hudson, N. Y.: World Book Company, 1939.

STORY PICTURES OF CLOTHING, SHELTER AND TOOLS. By Jonathan Yale. Chicago: Beckley-Cardy Company, 1939. Pp. 277. Colored illustrations, \$0.92.

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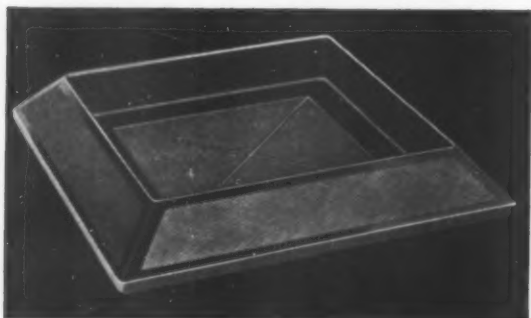
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The ALUMINUM LADDER COMPANY, Tarentum, Pa., has recently published a brochure describing aluminum ladders for every use. The outstanding features of the ladder are safety, lightness and ease of handling. . . . "Safe-bat," a rubber covered soft ball bat, has recently been announced by the LINCOLN SPECIALTY SALES COMPANY, Buffalo, N. Y. The bat is constructed of white ash enclosed in a thick cushion of sponge rubber; this prevents injuries even though a player is struck. A nonslip rubber grip reduces the possibility of the bat's slipping from the hands. . . . The U. S. SLICING MACHINE COMPANY, LaPorte, Ind., has recently introduced a new type of meat cutting machine called the "Delicator." A series of 58 sharp blades cut through

the meat in criss-cross fashion, severing veins, sinews and fibrous matter without squeezing out the juice.

A single horn that does the work of four of the trumpet type of loud-speakers in distributing upper register sound in the horizontal plane has been developed by the WESTERN ELECTRIC COMPANY, 195 Broadway, New York. It is designed for speech and music reproduction in sound distribution systems in which wide angles of coverage are desired. . . . A new V-shaped steering squeegee for floor cleaning is being manufactured by the G. H. TENNANT COMPANY, 1821 N.E. Marshall Street, Minneapolis. The squeegee rides close to the floor while the handle is moved up and down or sideways. It is made with a double edged, tapered rubber blade that can be replaced.

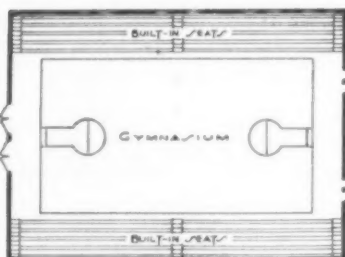
How to obtain maximum results in painting interior and exterior surfaces on all types of tanks and supporting structures is explained in a new folder recently issued by the AMERICAN ASPHALT PAINT COMPANY, 43 East Ohio Street, Chicago. . . . S. C. LAWLOR COMPANY, 122 North Aberdeen Street, Chicago, is offering to school administrators and custodians a booklet covering its line of all-steel floor maintenance equipment. Descriptions of roll mop

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Opening of the new HAMMOND ORGAN STUDIOS, Hammond Building, New York, was the occasion for an organ recital attended by approximately 300 guests. The highlight of the program was a short talk by Dr. Walter Damrosch on "Tolerance in the Arts." Much interest was manifested in the sizable auditorium and balcony with several adjoining smaller studios, each equipped with a console.

Robert D. Henderson has been appointed a representative of the GREGG PUBLISHING COMPANY, New York, with headquarters in Austin, Tex. . . . Burton M. Riker has been appointed sales manager of the commercial equipment department of McGRAW ELECTRIC COMPANY, TOASTMASTER PRODUCTS DIVISION, Elgin, Ill. . . . Dr. Richard H. Thornton has joined the firm of GINN AND COMPANY, Boston, as editor in charge of college publications.

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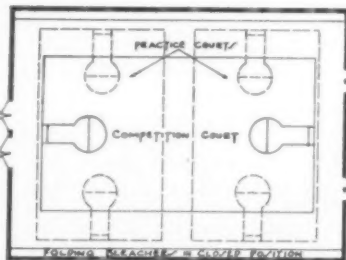


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CONTENTS

For February 1940

Side Glances—

Looking Forward	17
THE EDITOR abandons hope for federal aid to education from the present Congress; considers health education; deplors the exclusion of a marriage course from the curriculum of a teachers' college; foresees a significant trend in college athletics; questions the "gag" type of censorship that would bar fanatics from the air, and concludes with an anecdote.	
The Schools Have This Mission to Perform	20
The recently appointed associate justice of the U. S. Supreme Court, FRANK MURPHY, charges educators with the responsibility of education for democratic living.	
Living-Room Study-Room Project	22
Pupils enjoy living under this new arrangement, according to MAUDE L. WRIGHT.	
Guidance Through Tours	23
A phase of school tours frequently neglected but most important, according to PAUL H. JUNG.	
Coaching the Substitute Teacher	25
A committee of six faculty members of Joseph Johns Junior High School, Johnstown, Pa., made a study of this problem and submits its findings here.	
School Administrators to Hear What Is Right With Schools	26
Tentative program for the seventieth annual convention of the American Association of School Administrators, February 24 to 29, in St. Louis.	
Catskill Continues to Pioneer	28
Rip Van Winkle would look with astonished eyes upon the new junior-senior high school in his native village. MAURICE S. HAMMOND and ERNEST SIBLEY describe it.	
The Teacher Speaks Up	49
When queried as to their views of rapid school surveys by state officials, these teachers display a wide variety of attitudes toward rating, REED FULTON finds.	
Teachers' Salaries and Expenses	52
A study of the purchasing power of teachers' salaries in Colorado by E. L. WHITNEY and E. J. KALNEY.	
He Is a Good Citizen	55
If he is able to apply his training in the social sciences as he applies his early schooling in other subjects, says PAUL H. VAN NESS.	
The Married Girl Pupil	57
Among the causes for which a person of school age may lawfully be barred from the public schools, marriage is not one, M. M. CHAMBERS reveals. Thus is marked another step in the evolution of educational rights.	

AS the magazine goes to press comes a news flash informing us that Carroll R. Reed, Minneapolis superintendent, has been elected president of the A.A.S.A. His term as president will begin March 15. Mr. Reed has served as superintendent of Minneapolis schools since 1929. He is an editorial consultant to The NATION'S SCHOOLS.

MOST of these names, you will find, have a familiar ring: Bradley, Carr, Doudna, Everett, Haisley, Hill, Judd, McNutt, Moehlman, Norton, Oxnam, Spaulding, Stoddard and True. You'll encounter them in the convention issue, for they are among the speakers whose epitomized papers will find first publication in this magazine.

Every March we try to do a newspaper reporting job with a monthly magazine. Our objective is to have a copy of the publication, carrying around 45 pages of convention papers and convention news, on the administrator's desk when he returns from the A.A.S.A. meeting.

More than editorial enterprise is involved. To accomplish this, air mail, photo-engraving, printing and second class postal service must be perfectly timed. Publishing is truly a cooperative enterprise, and when a monthly magazine attempts news coverage it succeeds only through extra alertness and effort on the part of many skilled craftsmen and public servants.

WE PROPOSE a peepshow for your next month's edification. By squeezing into a small compartment beside a home economics major, you can look through a drop door upon chubby nursery school children engaged in all manner of creative activities. Ava B. Milam, director of home economics, has prepared a de-

Published monthly by The NATION'S SCHOOLS PUBLISHING CO., Inc., 919 North Michigan, Chicago, and 101 Park Avenue, New York. Otho F. Ball, president; Raymond P. Sloan, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. Yearly subscription, United States and Canada, \$2; foreign, \$3. Current copies, 25c each. Member Audit Bureau of Circulations. Copyright, 1940, by The Nation's Schools Publishing Co., Inc. Entered as second-class matter Jan. 16, 1928, at the Post Office at Chicago, Ill., under the Act of March 3, 1879.

CONTENTS

scription of the nursery school building at Oregon State College. With the added emphasis being given to the pre-kindergarten group by the January White House Conference and by educational psychologists, this type of school construction is rapidly and conspicuously emerging.

PROBLEMS in sound pictures—yes, there are problems. Even enthusiastic Arthur L. Richter, superintendent of the consolidated schools at Northport, Mich., admits that. However, the educational profits are worth twice the effort it takes to solve these problems, Mr. Richter believes. You'll be interested in his article scheduled for March.

LAST June Grace Stowell Saunders, supervisor of cafeterias for the board of education, Syracuse, N. Y., presented in this magazine a series of Operating Cost Charts for the school lunchroom. They are being fairly widely used now, we are told, in determining the prices that must be charged or the amount of the fixed price that may be spent for food, labor and other expenses.

This food economist has now worked out a series of tables showing the cost per serving of various foods, based on a sliding scale of purchase costs or edible portion costs. This type of detail in food cost control has formerly been intricate and time consuming. Through the Saunders charts accurate cost control becomes simple and rapid. Tables covering peas in the pod, canned peas and frosted peas will first be presented. Look for them next month or in April.

Index of Advertisers.....	13
Chalk Dust.....	54
As Others Say It.....	56
Better Plant Practices.....	64
Food for Thought.....	74
News in Review.....	76
Coming Meetings.....	80
On the Air During February.....	82
Film Releases.....	83
Films in Review.....	83
Names in the News.....	88
The Bookshelf.....	94
Trade News.....	96

Not Going to College?.....	58
How private schools handle a curriculum for a pupil who does not intend to go to college. By ADOLF C. NELSON.	

Emphasis on Culture.....	60
HARRY A. BROWN advocates a new curriculum for education of teachers.	

How Scots Conduct Education.....	65
CHARLES E. PRALL discusses the administration of Scottish schools.	

Health in the School

Portfolio Cover.....	33
TOP: Dental and eye examinations at public schools of Chisholm, Minn. CENTER: The health room at Jefferson Elementary School, New Rochelle, N. Y. BOTTOM: Instruction in brushing the teeth, Chisholm, Minn., and physical examinations, Cleveland public schools.	

Planning a Health Service Program.....	34
ALLEN G. IRELAND, M.D., and WILLIAM P. UHLER JR.	

Plant Plays Its Part.....	37
FRANCIS R. SCHERER	

Designed for Guidance.....	38
----------------------------	----

Evaluating the Entire Program.....	39
JOHN J. LEE	

School May Be Health Center.....	40
E. R. STEFFENSrud	

The Rôle of the County Nurse.....	42
CLAIRE GASTON	

Health Facilities on a Small Budget.....	44
HARRY MASON JONES	

Service Unit in New Rochelle.....	44
ELMON L. VERNIER	

Sanitation First.....	45
NORMAN J. RADDER	

Hazards in Foods.....	47
J. H. SHRADER	

The School Cafeteria

When Classroom Becomes Cafeteria.....	68
Crowded quarters at the Toppenish Junior-Senior High School, Toppenish, Wash., resulted in the construction of a cafeteria that provides for two classrooms by means of a folding partition. By ERNEST L. MUZZALL.	

Food Habits and Health.....	72
Problems involved in making the lunchroom a part of the school health education program are discussed by MARTHA KOEHNE.	

LOOKING FORWARD

Hope Fades

THE possibility of obtaining the enactment of federal legislation for general aids to public education during the current session of Congress is remote. The increasingly strong public opinion in favor of severe economy in federal expenditures, plus unprecedented peace-time expenditures for national defense, makes it difficult to see how the Congress can be persuaded to extend its policy to new appropriations. Not only will it be exceedingly difficult to interest the nation's lawmakers in this problem but it looks as if many existing agencies and services of government will be severely reduced.

As we have pointed out before, it is a more sensible procedure for the teaching profession to turn its attention to the states and communities. While federal aid may be a reasonably large factor in the ultimate program of public school finance, it is our belief that this aid will not come until the states have reorganized and modernized their administrative structures. So long as 26 states are operating upon the extravagant and obsolete district system, it is difficult to expect the federal government to do more than stimulate possible reorganization through subventions for the capital expense essential to improved structure. Even this stimulation through the federal Public Works Administration will now be contingent upon the early settlement of the extraordinary conditions created by worldwide belligerency.

Present conditions offer an opportunity for the teaching profession to unite upon a program of specific federal aid for the equalization of individual economic inequality and for capital improvement, two divisions of subventions involving much less controversy than the heavily lobbied bills of the past few years.

Health Education

HEALTH and physical education may be considered as one of six coordinate curricular divisions. Although of primary importance in the total instructional program, this division suffers in many instances from institutional malnutrition, myopic conception and dramatic distortion.

There is little provision for health education in the majority of the 126,849 school districts in the United

States. The elaborate programs in many towns and most city school districts tend to overshadow the fact that inclusion of health and physical education is still a minority curricular practice. This condition is due to the relative youth of health education and also to the fact that the marginal and submarginal school districts do not have the means to provide for it. Even in larger districts the academic tradition is still stronger than functional need and health education is one of the first curricular divisions to feel depression restrictions. In many of the larger districts health and physical education is conceived as physical education and athletics with only casual attention to examination, remedial work and school plant hygiene.

Health and physical education programs are frequently distorted for the immediate dramatic values of the championship cult; immature boys, and sometimes girls, are exploited for small town and city hippodrome entertainment. The annual spectacle in several states of pointing the school and community for a week-end of high emotion during the football and basketball seasons is too well known to require extended comment. Educators frequently rationalize this harmful distortion of a valid instructional division as an interpretative activity on the ground that it "sells the school." Their reasoning and their conclusions are open to serious questioning.

Considered functionally, health education embraces a series of activities all of which should be given serious consideration in a well-balanced curriculum. These include medical attention, physical education, play, personal and social hygiene, the cafeteria and the school plant itself.

The medical division of the health program includes clinical facilities for periodic examination, routine inspection of disease symptoms and adjustment of the school exercise and instructional program to individual vital capacity and to the care of emergencies. The human skin is a host to so many types of deadly bacteria that even the slightest abrasion should receive immediate attention to prevent possible infection and regrettable terminal results. Few schools place sufficient emphasis upon emergency treatment of such minor accidents. Much disease and suffering could be avoided if each building were equipped with hot water, soap, towels and simple first-aid material, including standard disinfectants. Teachers may be easily

trained to administer effective precautionary first aid. Serious accidents should receive immediate attention from either the school or the family physician.

In recent years some urban systems have provided elementary training for classroom teachers in the determination of handicapping visual, oral and auditory deficiencies. Their initial discoveries are later checked by competent physicians before remedial treatment is suggested.

For normal children exercise or play programs adjusted to age and individual need are suggested. For children whose vitality is low or who are recovering from the serious after-effects of disease, a rest program is more essential than exercise. There is still a tendency to build oversized gymnasiums to satisfy audience needs while facilities for rest or for sudden indispositions are neglected. Many more schools have gymnasiums than infirmaries or other quiet, well-ventilated quarters for rest and relaxation.

The teaching of personal and social hygiene is frequently a routine activity carried on one hour a week as a substitute for gymnasium work. According to eminent hygienists, it is possible to teach all the valid principles of personal and social hygiene in a half dozen lessons. It would, therefore, appear to be a much more satisfactory procedure to integrate this information with other subjects and materials and establish a hygienic point of view in every aspect of school life. Provision for the washing of hands before eating is one of the most important needs.

The cafeteria came into the school for other than health reasons but its presence makes it essentially an important part of the total health activity. The provision of well-balanced, energy-building meals adjusted to child needs and emphasis upon the health aspect of eating are definite obligations upon cafeteria authorities.

Health teaching loses much of its value when the institution fails to practice what it preaches. Few districts insist upon periodic physical examinations for operating and cafeteria help to determine the presence of communicable, particularly venereal, disease. Sanitary plumbing is frequently never discussed despite the fact that a conference on sanitary needs and practices might be more important for a staff meeting than the conventional tirade on tardiness and attendance. Permeation among the school personnel of proper attitudes toward health might also eliminate the absurdity of attendance drives that neglect the pupil's health in the interests of statistics.

The use of inadequate and outmoded heating systems in view of current knowledge of the values of certain types of air conditioning is frequently blamed upon financial inability, whereas often it grows out of neglect.

Health education is an extremely important phase of education. Let's practice it!

Boston Acts

THE Boston board of superintendents unanimously made a recommendation to the school committee during October against the inclusion of a course in marriage and its problems in the curriculum of the Teachers College of the City of Boston. This recommendation was approved by the school committee by a 4 to 1 vote on October 30.

Mating and the rearing of children are among the most important problems confronting human beings. Many of the current difficulties that eventuate in divorce and broken homes might be solved if men and women approached this important problem with some knowledge. Within the last two decades numerous sociological, psychological and medical studies have been made in this moot field and this literature should be available to youth under proper teaching conditions. The peculiar benighted attitude of both conventionalized educator and layman to the marriage problem is difficult to explain. Women are not born as capable mothers and men do not instinctively become good husbands and fathers. Both need training.

Experimentation on both the secondary and advanced educational levels in classroom instruction is fortunately taking place in all sections of the country and is gaining yearly in momentum. The growing interest of both youth and adults in these vital problems of homemaking should be capitalized upon by the schools. It is far more sensible that training in marriage and its problems be given under institutional guidance than it is to have our youth pick up information from the gutter, the cheap magazines and the motion pictures. A generation of intelligent teaching of the problems involved in selecting a mate, living together harmoniously and rearing healthy children would do more to reduce the current divorce rate than thousands of sermons and diatribes upon the evils of divorce. Education in marriage and the home seeks to discover and to teach the conditions essential for sound family life, going to the root of the problem instead of merely viewing results "with grave alarm."

Considering the importance of the problem, the interest of youth and the success achieved in experimental efforts in this field, it is regrettable that the Boston schools with their fine tradition of intellectual leadership should disapprove the introduction of such a course for so mature a group as teachers in training.

Chicago Advances

The board of trustees of the University of Chicago took a significant step in late December when it adopted an instructional policy respecting football that removes the institution from participation in the Big Ten Conference. After the barrage of disapproval voiced by sports writers and by the perennial sopho-

moric alumni has died down, it is possible to evaluate the trustees' action.

In their opinion, the heavily exploited and highly dramatized development of football does not fit into the intellectual program of the university. Johns Hopkins University came to the same conclusion many years earlier. Unable to continue active participation under the conditions that such competition implies, the Chicago trustees adopted the simple procedure of adjusting football to their instructional aims.

The trustees in a published statement declared their firm belief in organized athletics and play for all students on the sensible basis of intramural activity. Many other institutions have been unobtrusively building up similar intramural programs that involve the majority of their student body in regular participation in organized games. Ultimately these intramural activities will supplant the highly exploited football and basketball competition. This change will come slowly and need not be expected before the heavy debts on current stadiums have been liquidated. However, policies such as those recently adopted by the University of Chicago are significant and represent a courageous trend toward a recapture of their runaway athletics by institutions of advanced learning. Instruction is the supreme function of the school!

Freedom of Speech

THE recent action of an association of operators of large radio stations to bar individual discussions of controversial issues from the air unless these discussions take place on a forum type of program appears to be a dubious procedure that deserves extended discussion and close scrutiny instead of complacent acceptance. The obvious but unmentioned purpose was to provide a general policy whereby radio commentators like Father Charles E. Coughlin might be barred without personal embarrassment to individual owners or radio chain management.

However, the fundamental issue involved is not primarily the restriction upon individuals whose ideas are controversial and, hence, embarrassing but the wider restriction on free speech. Democracy demands open discussion of all problems. Individuals must be free to express their beliefs and opinions even if they happen to be unpalatable to others. The American people are mature enough to listen to all points of view and diverse expressions of opinion without flocking like sheep after the first blatant demagog who pipes a pied tune or offers Utopia. They can make up their own minds. A host of propagandists of the Coughlin stripe uses the radio constantly. For most of them we have little sympathy, but it is socially dangerous to apply a gag rule no matter how smoothly the gag may be built and applied. Censorship of this type is dangerous to democratic processes. There must be no restriction on

freedom of individual or group expression as long as the people involved operate within their constitutional rights of free speech and do not advocate the overthrow of democratic processes. Given sufficient opportunity to express themselves, these rabble raisers soon exceed the bounds of good taste and the American ideal of fair play and lose their following. This cycle has been the history of many special propagandas. Regardless of attitude, it is much more dangerous to stop them and create martyrs than to permit them enough lingual rope to hang themselves.

In one sense the owners and operators of radio stations are trustees over a special form of communication that, in the last analysis, belongs to all the people. The radio is much too important to permit its ultimate policies to be determined by a handful of station owners. Like the newspaper, the radio is an instrument for the communication of ideas and every American citizen should have the normal right to express or to listen to an expression of his point of view.

A more effective solution might be the offering to interested individuals or groups the opportunity to controvert these special propagandas rather than to close the airways to opinions in which the owners of stations do not concur. Censorship is dangerous. Once applied, it is difficult to draw the line or restrain it. The American people are intelligent enough to make their own choices.

Relative Values

THERE is a southern educator of more than local reputation who shall be nameless here. His is a bland and disarming personality which frequently causes people to misjudge him, to their wondering regret. He is intensely capable in human relations, knows how to open doors and has an almost uncanny knowledge of where money is and how to get it.

A story concerning his unerring judgment is now going the rounds in the South to the accompaniment of many a chuckle. Some time ago a post office clerk (he knows all of them by their first names) called him late at night and told of a letter just received, addressed to him from the White House. The educator suggested without much more than casual interest that it be sent to the office in the morning and went right on with his preparations for retiring. Just as he was falling asleep, the post office again disturbed him by stating that a second letter bearing the return address of John D. Rockefeller Jr. had been discovered in the same mailbag. Half awake, but fully sensible of its possible meaning, he shouted into the phone: "Whom did you say it was from? Rockefeller? Hold tight, I'll get dressed and come right down to get it."

The Editor

The Schools Have This

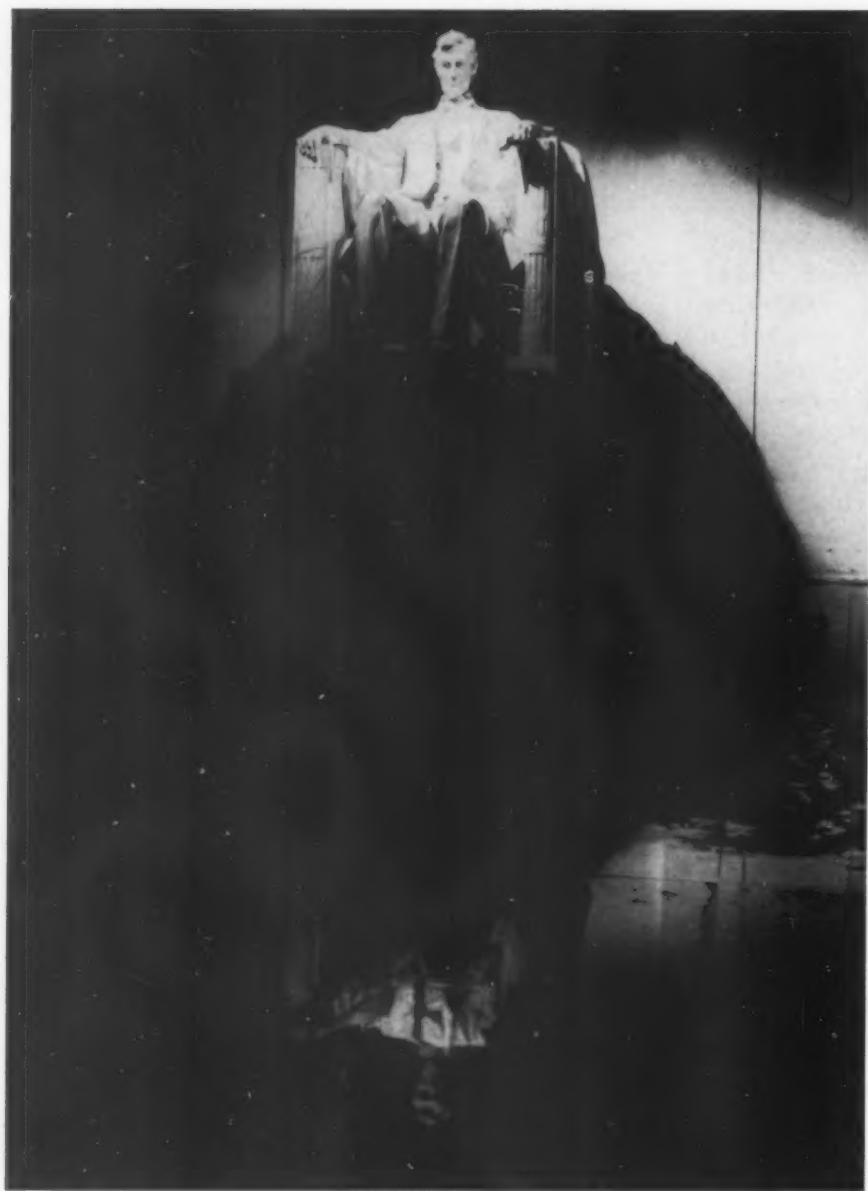


Photo by R. I. Nesmith and Associates

TO A NATION depressed by a daily news diet of war communiques and saddened by a world atmosphere of intolerance and strife, there came the other day a ray of cheer and hopefulness. A survey of public opinion has disclosed that only one American in 10 would like to have the teaching of German eliminated from our schools and colleges. Most heartening of all was the finding that the younger voters from 21 to 30 years of age were almost unanimously against any such measure. One likes to think that, in the

event of a protracted and widening conflict, this tolerant attitude of faith in academic freedom would continue undiminished. Perhaps it would. But if there is any lesson to be learned from history on this score, it is that the longer a war is waged and the longer emotions are fanned, the greater is the strain on traditional tolerance and openness of mind.

In all likelihood, the devotion of the American people to civil liberty and tolerance was as deep and sincere in 1914 as it is today. But it took only three years to show how

easily earnest people can become unfaithful to their ideals; how simple it is to acquire that state of mind in which it is held dangerous to be overly thorough in the practice of what we preach; how quickly in a crisis people can come to believe that perhaps, after all, we "can have our cake and eat it too"; that liberty, perhaps, ought not to be for the non-conformist as well as for the man in the majority!

There is war again, war of such extent and such potentialities that men from the first have ominously spoken of it as the "Second World War."

In such a situation there are some things that a neutral nation is compelled to do. It has to take every sound and practical step to preserve its peace and it has to take every necessary step to protect itself fully against possible attack. Not the least of the tasks involved in the latter problem is that of preparing a defense against the type of attack that is expressed not by torpedoes and bombs and machine guns but by espionage and sabotage and subversive activities.

About our proper policy toward such dangers there should be no question. It is the clearly legitimate function of any nation to protect itself vigorously from efforts to involve it in war or to weaken it as a prelude to possible attack. It is not only a legitimate function but an imperative one. The price of safety in a war torn world is alert preparedness and a vigilant defense.

But it is exactly at this point, where our proper policy is so clear, that our difficulties begin. Preparedness and defense have a tendency to become with some of us so urgent a necessity that we lose sight of another necessity, which is equally patriotic and equally important, the necessity of preserving the integrity of the Bill of Rights. Ardently professing our faith in the abstract concepts of Americanism and democracy, we condone, if we do not ourselves engage in, activities and movements directly opposed to the

Mission to Perform

FRANK MURPHY

Associate Justice
U. S. Supreme Court

very things that are the substance and the soul of Americanism and democracy.

So it was in the hectic days of the World War. There was increasing suspicion toward alien and other minority groups; meetings were broken up and homes invaded in the search for "spys"; extralegal groups assumed the functions of civil authorities, and sometimes the civil authorities themselves fell victim to hysteria.

The scope such movements take in the schools is not surprising. Legislatures pass "teachers' oath" laws; there is a hue and cry that the little old schoolhouse is "red" not merely in concrete fact but in the more ominous and odious sense of the word; we are told that the colleges are "hot beds of radicalism," and here and there progressive minded teachers find their jobs in danger.

The tragic thing is that we do this, in the main, earnestly and with the best of intent but, alas, not thoughtfully or soberly.

In an excess of zeal, we forget the great and vital facts behind the glittering phrases that we so earnestly repeat. We forget that the heart and soul of the democratic method is that freedom of thought, that freedom of inquiry, which in the school becomes academic freedom. We forget that the greatest and most glorious difference between democracy and the dictator states is the fact that democracy not only permits its citizens to study the facts about other philosophies of life and government but encourages them to do so.

We forget that if democracy did not do this it could not survive as a democracy, that democratic processes would fade away and die. For it is on this one idea of freedom of thought that democratic methods and processes are built. The very laws under which we live are its products and its symbols. Inquire and consider, seek the truth, debate and discuss, exchange views and opinions, argue and persuade, ask questions and freely answer them, these are the acts and the processes

of which democracy is made and by which it functions.

And the school, preeminently, is the institution in which these acts and processes are given full play.

There the truths of all life, insofar as men have been able to discover them—the facts of history and science and art and philosophy—are described and exposed to the mind of the student. Impartially and objectively, the school presents the great contentions and the prominent philosophies of all times.

In the fact that the school and all its allied agencies of formal and informal education can do this are the great glory and the salvation of the

way of life that men have named democracy.

In the totalitarian states, this is not true. Of one of them an eminent contemporary historian has written: "Decree after decree shows that it is . . . openly hostile to every manifestation of free inquiry and discussion in the schools from the bottom to the top. The subjects to be taught, the books admitted to schoolrooms, the papers and magazines bought for libraries and the very spirit of instruction are prescribed in minute detail. No room is left for private opinion. . . . The life and sports of students as well as the thought and conduct of teachers are brought with-

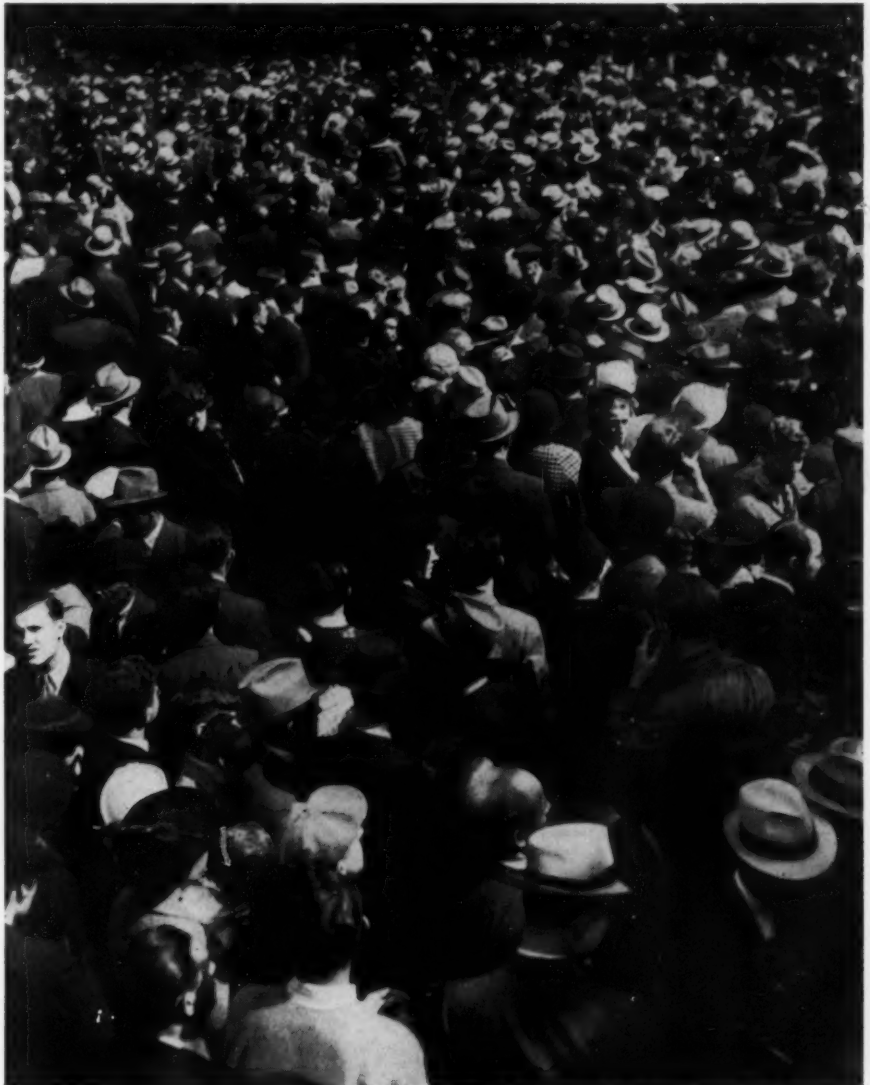


Photo by R. I. Nesmith and Associates

in the system of regimentation. The declared purpose and program of education are to crush all liberty of instruction and all independent research for truth."

There is nothing American, nothing democratic in all this. Such a system of education can be nothing but anathema.

Yet this hateful system and the tendencies that we have seen in America in times of stress are all of a pattern. "Shut off the sources of information, limit the areas of knowledge and education, and all will be safe." Such is the policy of the

authoritarians and such, although we may not and generally do not realize it, is the principle that underlies the efforts to restrict and to delimit the field of educational inquiry and study.

There is one fact which should not need to be repeated but about which there seem to exist perennial confusion and misunderstanding. It is the obvious fact that academic freedom does not mean freedom to propagandize. There is no place in the schools of a democracy for any propaganda but the propaganda of truthful knowledge. That teacher who

uses his position as an instrument of indoctrination should expect and receive no leniency.

Such a teacher does more than debase a noble calling. He betrays democracy itself. For in a social organization whose success and progress depend upon an open-minded, tolerant people possessed of a desire and a will to be informed of new ideas and facts, it is a treasonable thing to encourage and to foster the type of mind that is closed to all but one line of thought.

The schools have a mission to perform, a sacred mission of inculcating that breadth of knowledge that enables democracy to survive. In a time like the present, the sacredness of that task is inexpressibly heightened.

If we would safeguard the schools, we must protect them, on one side, from those whose enthusiasm would lead to the restriction of academic freedom and, on the other, from any within the schools who would pervert academic freedom into license to propagandize.

We must keep the schools true to the purposes of education. We must help them to promote informed, unprejudiced thinking; to make certain that this thinking is not expressed in antisocial activities; to look at the world as it may be in the future; to point out, objectively and with understanding, the things in our present day society that need correction, and, above all, to teach people not what they should or should not believe but how to think and to reason intelligently for themselves.

Let the schools continue ably and courageously to follow this course and we need not fear that our youth will reject democracy. For if they know the truth, the truth shall make and keep them free.

To the teachers of America, I could suggest no finer counsel than that contained in the heartening declaration of the Educational Policies Commission adopted last October, one month after the beginning of the European hostilities:

"At the present time, America can make no greater contribution to the well-being of humanity than to place before the world the stirring example of a democracy in action in a crisis."

Living Room-Study Room Project

MAUDE L. WRIGHT

Teacher, Spivey, Kan.

EVERY morning in the school system at Spivey, Kan., the first thirty minutes is given to group discussions on any subject. In these discussions the subject of home invariably arises. The pupils frequently objected to the fact that the school was not like a home because, after work was completed in the mornings and afternoons, there was no place of comfort as there is in their homes. Their fathers, they pointed out, did not come home and sit in a straight chair to read the newspaper after the day's work was done.

This led to the arrangement of the schoolroom like a living room and study room combined. The seats were moved to one side of the room. The manual training pupils made and painted a magazine rack and a house plant box and repaired and re-finished the wicker table, chair and settee that the dramatic club had donated. The club also donated a bookcase when they learned about the home project. The girls' sewing class made bright new covers for the settee and chair and new sash curtains. The proceeds from a junior high school play purchased an inlaid linoleum rug for the floor and a new flag. Subscriptions were taken for a newspaper and two magazines, a weekly and a monthly. Then we were ready to move in. The pupils

worked every afternoon until 4:30 o'clock and then they were not ready to go home.

Pupils made their own rules for the use and care of the room. When one had finished all his morning's or afternoon's work and his conduct was good, he could go quietly to the living room to relax and to read a magazine, book or daily paper. This usually did not happen before 11:30 or 3:30 o'clock. This gave an incentive to work and took care of discipline. At noon and at recess the house plants were watered and cared for and the fish fed. Pupils did not need to be reminded about these tasks.

If the girls wanted to play the piano a few minutes before school was out and sing, they did. Soon the boys, overcoming their timidity, were singing too. Loud boisterous ways were dropped and politeness in the schoolroom became noticeable. The pupils enjoyed living under this new arrangement.

In cold and rainy weather the youngsters from the primary room came in at recess and at noon to play jacks on the linoleum. Many times when a pupil became ill, the settee was used for a bed.

We have had more than 100 visits by interested parents and school officials since our living room-study room was installed.

Guidance Through Tours

PAUL H. JUNG

Seventh Grade Advisory Chairman
Grosse Pointe High School
Grosse Pointe, Mich.

KNOW your pupils is a first essential of guidance. It is an acknowledged fact that, before a teacher can be of real help to a child, he must know something about the child's personality, interests, habits and health. Even though complete cumulative records have been kept, they are often found to be inadequate because they usually consist of incomplete descriptions of the child's reaction to particular classroom situations. To know that Fred is from a moderately wealthy family and that he does not receive the attention and sympathy at home that a child should have is helpful but hardly sufficient. The teacher should know Fred himself.

In an attempt to overcome this difficulty, to know my pupils better, to become their friend and to enjoy their comradeship, I organized and conducted a series of tours, most of which were taken on Saturday mornings.

Because Grosse Pointe, Mich., is a fine residential suburb of Detroit, our choice of places to visit was almost unlimited. In making the plans for the tours, I presented to the pupils a list of 20 places of interest in Detroit and vicinity where we would be welcome as visitors. They were asked to check their first three choices and add any other that they might prefer. These choices were then tabulated and the 10 receiving the most votes were selected for our tours.

We visited Greenfield Village, Henry Ford's beautiful and historic New England village assembled at Dearborn, Mich. We saw how life was lived by our ancestors in a simpler day and rode in their horse drawn carriages. We visited a large Detroit creamery and were given samples of the chocolate milk and ice cream, which we had seen made. We visited the *Detroit News* plant and



Tours enable the teacher to see and to study the pupils in an uncontrolled setting. Pupils who are shy in class "come out of their shells" on a trip.

the new home of WWJ, the world's oldest radio broadcasting station, where the pupils were permitted to make their own "sound effects." These are only three of the many interesting places the pupils visited.

In most descriptions of such tours, only a passing mention is given to their guidance value. While this phase is frequently neglected, it seems to me that it is probably the most important. Tours enable the teacher to see and to study the pupils in an uncontrolled setting, which helps him to recognize many behavior traits that are not apparent in the classroom. Some pupils who are shy and retiring in the classroom "come out of their shell" on a trip. For instance, Charles, who is quiet and unassuming in his classes, led the group in singing several popular songs, was lively, jovial and totally different from the boy whom we knew in class. This trait in Charles might never have been discovered had the setting provided by a tour not been furnished, for as we discovered later, Charles' academic progress was continually compared

by oversolicitous parents with that of his older, more book-minded brother. This had made Charles self-conscious of his work in class.

Tours are a good way to discover pupil interests. A well-planned program of excursions will enrich the experiences of the pupils and serve as a sort of natural laboratory for the social studies, science, English, art and mathematics classes. Here the alert and observant teacher may readily detect that Frank is genuinely interested in things mechanical, while James quickly passes such things by. On our trip to the creamery, Tom became fascinated by the experiments of the bacteriologist. His science teacher has capitalized on this interest.

Through tours, it is possible to establish a fine sense of comradeship between pupil and teacher. Mutual respect and confidence can be fostered. Informality prevails. Pupils and teachers ride on the same bus, sing songs and exchange stories. They discuss what they have seen and experience many thrills together, as, for example, sitting in the pilot's



Above: Studying the artistry of the early glass blower at Henry Ford's reconstructed Greenfield Village, assembled at Dearborn, Mich. Left: Packing a parachute at Selfridge Field. Below: A bacteriologist demonstrates for the class.

seat in a U. S. Army pursuit plane at Selfridge Field or watching the glass blower at Greenfield Village. This feeling of camaraderie between pupil and teacher is invaluable, if the latter is to render any real service. It enables the pupil to see the teacher as a real human being who enjoys many of the things that he himself does.

These values are of utmost importance, yet they are seldom mentioned among the benefits to be derived from a program of well-planned tours. However, before such values can result, careful planning must be done. The pupils should be helped to realize that the tour is an important part of their regular school work. The tours, even though planned and selected by the pupils, may well grow out of the work of the classroom or may prepare pupils for future work. They are most profitable when careful preliminary preparations are made by the pupils and teachers working cooperatively.

The written consent of the parents of the pupils making the trip should be obtained and also the permission of the institution or concern to be visited. Arrangements should be made for a guide wherever possible. A definite time for leaving and returning should be set in advance. Special precautions should be taken for the safety of the pupils. If the school has no bus and experienced driver of its own, it is best to engage a bus and driver from a reliable coach line. The size of the group will vary with the purpose of the trip and the requirements of the company or concern to be visited. For most trips a group of 35 pupils, accompanied by at least two or three teachers, is desirable.

A schedule of the trips to be taken should be announced far enough in advance so that the teachers may plan their work to take every possible advantage of them. If the teacher has visited the place before, he will be able to help the pupils even more in making the necessary preparations. In the classroom, teachers and pupils may make a list of questions the answers of which are to be discovered on the trip. Class discussion before the trip will help
(Continued on page 51)

Coaching the Substitute Teacher

By A COMMITTEE OF TEACHERS

Joseph Johns Junior High School, Johnstown, Pa.

THE realization that a teacher's absence from school presents a definite problem for both the administrator and the substitute teacher led to a special study of this problem four years ago at Joseph Johns Junior High School, Johnstown, Pa.

The principal had experienced embarrassing moments on various occasions, when, upon having accompanied a substitute teacher to a room, he was unable readily to locate necessary working materials. This occurred more often when the substitute teacher had not been called in time to arrive before the session had begun; thereupon, he appointed a committee of five faculty members to make a study of the problem and to submit its findings.

It was learned that when a teacher's absence was anticipated the work was usually well planned and the required materials were accessible, whereas an unexpected absence caused a situation mutually ineffective to both the pupil and the substitute teacher. Upon the return of the absent teacher, the situation was frequently further aggravated because no definite statement of the work accomplished by the substitute was available.

Questionnaire Survey

Since the problem as it existed at Joseph Johns, a school of more than 1400 pupils and 50 faculty members, was probably the same as in other schools, the committee began its work by interviewing principals and teachers in a number of school districts surrounding Johnstown and by sending out questionnaires to many high schools, colleges and universities. This resulted in some 60 replies, all of which indicated that little or nothing had been done in other schools with reference to this problem.

Also, little had been written on the subject. Of the material found, however, the dissertation on "Or-

COMMITTEE

Colbert Varner, Chairman
Helen Catherine Sipe
Eleanor Birk
Dorothy Grubb
Ruth Ryan
Helen Hartman
Scott R. Lackey, Principal

ganization and Administration of Substitute Teaching Service in the City School System" by Clare Charles Baldwin sets forth some excellent criteria for evaluating administrative practices and establishing standards in the field.

The committee then asked the teachers of Joseph Johns for suggestions that might be useful in drawing up a general plan to make the work of the substitute teacher more efficient and more easily handled. After careful study, selection was made from that material which had merit and, at the suggestion of the committee, the following plan was adopted by the faculty:

1. Each teacher kept a seating chart of both his homeroom and classes, thus making it easy for the substitute teacher to check attendance and to recognize each pupil by name.

2. Every Friday, each teacher placed at some convenient location a brief lesson plan of the next week's work for each class. The type of plan was left to the discretion of the teacher, since each teacher knew best the plan suited to his subject.

During the first two years after the inauguration of the plan, comments, suggestions and criticisms were invited and carefully noted by the committee. With the beginning of the next school year, the committee again studied the plan. Experience showed that the seating charts had been of decided value.

To the original plan, two new suggestions were added: (1) Each teacher was to train some responsible pupil in each class to check attend-

ance and to handle supplies, and (2) a mimeographed form, "Information for the Substitute Teacher," was to be filled in by each teacher and filed in the office of the principal.

After experimenting with the foregoing, a number of additions were made until the form now contains the following information: location of seating charts, roll book, lesson plans, keys and other materials; names of homeroom officers and names of responsible pupils in homeroom and in each class.

On the same form there are further instructions for the substitute teacher. One of the most helpful is that which requires the substitute at the conclusion of his period of work to hand in to the office a short account of the material covered and the work accomplished. After examination by the principal this report is handed to the regular teacher, who uses it as a guide and reference in continuing the work of his subject.

Advantages of the Plan

The plan proved advantageous from all points of view. To the administrator it is exceedingly valuable. Much time is saved when essential information desired by the substitute teacher is available in definite and compact form. Thereby, much confusion is eliminated and more time is available for teaching, which results in the fact that the number of disciplinary cases is greatly reduced.

Pupils benefit because many details are taken care of by those who have been trained. Confidence in and respect for the person in charge is established.

The substitute teacher finds a naturally difficult situation made easier and can, therefore, contribute his best toward the teaching of his class.

The regular teacher is enabled to continue more efficiently upon his return, since his work has been carried on with some degree of efficiency during his absence.

School Administrators to Hear

A.A.S.A. Convention Program

Saturday, February 24

All Day—Registration and exhibits in the St. Louis Municipal Auditorium.

2 p. m.—Joint conference on teacher education.

8 p. m.—National Society for the Study of Education.

Sunday, February 25, 4:00 p. m.

Topic: Character Building for Future American Citizenship.

Presiding: Ben G. Graham, superintendent, Pittsburgh, and president of the A.A.S.A.

Music: St. Louis a Cappella Society.

Presentation: Honorary Life Memberships.

Sermon: "Contemporary Crucifixion and Crusade," Rev. G. Bromley Oxnam, resident bishop, Methodist Episcopal Church, Boston area.

8:00 p. m.

Program: "Musica Americana," a dramatic portrayal of American music, will be presented by the St. Louis public schools, with 2700 high school pupils participating. Through music, dancing and dramatic art the story of American music will be told, beginning with the time of the Indian, the Puritan and the Cavalier. In succeeding episodes the musical history of America will be traced to the modern works of Gershwin and Kern.

Monday, February 26, 9:00 a. m.

Topic: "What Is Right With the Schools?"

Presiding: Ben G. Graham.

Address: "What Is Right With the Elementary Schools?" Edgar G. Doudna, secretary, Wisconsin State Board of Regents of Normal Schools.

Address: "What Is Right With the Secondary Schools?" Francis T. Spaulding, associate professor of education, Harvard University.

Address: "What Is Right With American Youth?" Willis A. Sutton, superintendent of schools, Atlanta, Ga.

2:15 p. m.

Afternoon Discussion Groups: Division 1, Educational Policy, John A. Sexson, superintendent, Pasadena, Calif., chairman; division 2, Public School Business Administration, Jesse H. Mason, superintendent, Canton, Ohio, chairman; division 3, The Small School, J. W. Ramsey, superintendent, Fort Smith, Ark., chairman; division 4, Secondary Education, William J. Hamilton, superintendent, Oak Park, Ill., chair-

man; division 5, Occupational Adjustment, Homer W. Anderson, superintendent, Omaha, Neb., chairman, and division 6, Special Education, J. C. Cochran, assistant superintendent, San Antonio, Tex., chairman.

Division 1, Group A: Description of Civic Education Project of Educational Policies Commission.

Presiding: Dean J. B. Edmonson, School of Education, University of Michigan.

Address: "Purposes and Methods," William G. Carr, secretary, Educational Policies Commission.

Address: "Some Basic Assumptions," Dean Harold Benjamin, College of Education, University of Maryland.

Address: "The Curriculum and Citizenship Education," Howard E. Wilson, associate professor of education, Harvard University.

Address: "Community Participation in Citizenship Education," Samuel Everett, associate professor of education, Northwestern University.

Address: "Some Effects of School Administration on Citizenship Education," Oliver H. Bimson, assistant superintendent, Lincoln, Neb., and consultant, Civic Education Project.

Address: "School Morale as a Factor in Citizenship," G. L. Maxwell, assistant secretary, Educational Policies Commission.

Division 2, Group A: "Planning the Modern School Building."

Presiding: T. C. Holy, professor of education, Ohio State University.

Address: "School Equipment Research Needs," J. A. True, superintendent, Council Bluffs, Iowa.

Address: "Planning the Community School," N. L. Engelhardt, professor of education, Teachers College, Columbia University.

Exhibit: Recent outstanding school building developments, George A. Bowman, superintendent, Lakewood, Ohio, in charge.

Division 3, Group A: "Efficiency in the Administrative Organization of Small Schools."

Presiding: H. W. Stilwell, superintendent, Texarkana, Tex.

Address: "Effective and Economical Administrative Units for Small Schools," Floyd T. Goodier, Illinois State Normal University, Normal.

Address: "Functional Internal Organization of the Small School," R. D. Case, superintendent, Salinas, Calif.

Division 4, Group A: "Problems of Administration at the Secondary School Level."

Presiding: Ray E. Cheney, superintendent, River Forest, Ill.

Address: "An Appraisal of Secondary School Administration," William C. Reavis, professor of education and superintendent of laboratory schools, University of Chicago.

Address: "Trends in Supervision at the Secondary School Level," Francis L. Bacon, superintendent, Evanston Township High School, Evanston, Ill.

Discussion Leaders: G. D. Whitney, associate superintendent, Pittsburgh, and Philip H. Falk, Madison, Wis.

Division 5, Group A: Trends in Guidance for Occupational Adjustment.

Presiding: Arthur D. Arnold, superintendent, Passaic, N. J.

Address: "Our Responsibilities for Guidance," Shirley A. Hamrin, Northwestern University.

Address: "Evidences of Progress in Guidance," Richard D. Allen, assistant superintendent, Providence, R. I.

Division 6, Group A: "The Development and Present Status of Special Education in City School Systems."

Presiding: William H. Johnson, superintendent, Chicago.

Address: "The Development of Special Education in City School Systems," Paul Gossard, Bloomington, Ill.

Address: "Special Service Agencies Functioning in City School Systems," Mrs. Katherine M. Cook, chief, division of special problems, U. S. Office of Education.

Discussion Leaders: Paul L. Essert, principal, Emily Griffith Opportunity School, Denver, Colo., and H. S. Hemenway, superintendent of Shorewood schools, Milwaukee, Wis.

8:00 p. m.

Topic: "The National Scene."

Presiding: Ben G. Graham.

Music: Detroit Schoolmen's Club Chorus, Howard A. Love, director.

Address: "The Vital Diplomatic Fronts," James G. McDonald, honorary president, Foreign Policy Association; chairman, President Roosevelt's Advisory Committee on

What Is Right With Schools

St. Louis, February 24 to 29

Political Refugees, and president, Institute of Arts and Sciences, Brooklyn, N. Y.

Address: Paul V. McNutt, administrator, Federal Security Agency.

Tuesday, February 27, 9:00 a. m.

Topic: Safety Education, 1940 Yearbook.

Symposium: The Contribution of Safety Education to Good Citizenship in the Age of Speed. Showing of safety films.

Platform Guests: Members of 1940 Yearbook Commission.

Address: "Industry and Safety Education in the Schools," Paul G. Hoffman, president, Automotive Safety Foundation, South Bend, Ind.

Address: "The Home and Safety Education in the Schools," Mrs. Mark Ethridge, Louisville, Ky.

Address: "The Obligation of the Schools for Safety Education," Henry H. Hill, superintendent of schools, Lexington, Ky.; chairman, 1940 Yearbook commission.

Business Session: Unfinished business, nomination of officers from the floor.

2:15 p. m.

Afternoon Discussion Groups: Second session. Allied departments and organizations.

Division 1, Group B: "Education and the Economic Welfare."

Presiding: Alexander J. Stoddard, superintendent, Philadelphia, and chairman, Educational Policies Commission.

Address: "Educational and the Economic Welfare," John K. Norton, professor of education, Teachers College, Columbia University.

Division 2, Group B: "The Work of the School Board."

Presiding: Loren E. Souers, member, board of education, Canton, Ohio.

Address: "Policy Determination, the Fundamental Purpose of the School Board," Francis J. Brady, chairman, school committee, Providence, R. I.

Address: "The Maintenance of the Program of Public Education in Relation to the Increasing Demands of Other Social Agencies," George D. Strayer, professor of education, Teachers College, Columbia University.

Division 3, Group B: "The Improve-

ment of Instruction in Small Schools."

Presiding: Julius E. Scott, superintendent, Peekskill, N. Y.

Address: "Through Curriculum Vitalization and Enrichment," Willard S. Ford, superintendent, Glendale, Calif.

Address: "Through Helpful Supervisory Assistance," Edwin H. Reeder, University of Illinois.

Division 4, Group B: "Problems of Curriculum Organization at the Secondary School Level."

Presiding: J. A. True, superintendent, Council Bluffs, Iowa.

Address: "Curriculum Trends in the Modern Elementary School," Ralph W. Tyler, chairman, department of education, University of Chicago.

Address: "Observations Relative to the Advantages and Disadvantages of the 6-4-4 Organization," John W. Harberson, principal, Pasadena Junior College, Pasadena, Calif.

Discussion Leaders: W. B. Townsend, Guidance Laboratory, Teachers College, Columbia University, and Harry K. Newburn, director, University High School, University of Iowa.

Division 5, Group B: "Adapting the Training Program to the Needs of Your Community."

Presiding: L. John Nuttall Jr., superintendent, Salt Lake City, Utah.

Address: "Technics for Analyzing Community Needs," Harry A. Jager, chief, occupational information and guidance service, U. S. Office of Education.

Address: "Training Programs in Smaller Communities," R. B. McHenry, adviser in industrial training, N.Y.A.

Division 6, Group B: "Special Problems in the Education of Handicapped Children."

Presiding: K. E. Oberholtzer, superintendent, Long Beach, Calif.

Address: "Mentally and Physically Handicapped," John J. Lee, director of special education, Wayne University.

Address: "Delinquent Type," Edward H. Stullken, principal, Montefiore School, Chicago.

Discussion Leaders: George L. Hawkins, assistant superintendent, St. Louis, and Lowell P. Goodrich, superintendent, Fond du Lac, Wis.

8:00 p. m.

Hosts: Associated Exhibitors of the National Education Association.

Presiding: James A. Campbell, president, Associated Exhibitors.

Address: "Tribute to the Recipient of the American Education Award," Ben G. Graham, president, A.A.S.A.

Award: Presentation of the American Education Award to William Lyon Phelps by James A. Campbell.

Response: William Lyon Phelps, author and professor emeritus of English literature, Yale University.

Address: "In Lighter Vein," Irvin S. Cobb, author and humorist.

Music: Vocal selections, Walter Jenkins, Rotary International baritone; Nancy Yeager Swinford, Houston Symphonic Orchestra soloist. St. Louis Municipal Opera Orchestra, Benjamin Rader, conductor.

Wednesday, February 28, 9:00 a. m.

Topic: Superintendents Tell Their Story.

Symposium: Eight superintendents will participate in this symposium on critical educational problems.

Report: Audit committee, Louis Nusbaum, associate superintendent, Philadelphia, chairman.

Report: Committee on Certification of Superintendents of Schools, Otto W. Haisley, superintendent, Ann Arbor, Mich., chairman.

2:15 p. m.

Afternoon Discussion Groups: Third session. Allied departments and organizations.

Division 1, Group C: "Social Services and the Schools."

Presiding: Floyd W. Reeves, director, American Youth Commission.

Address: "Community Recreation, Library Services and the Schools," William G. Carr, secretary, Educational Policies Commission.

Address: "Community Health and Welfare Services and the Schools," Katharine F. Lenroot, director, Children's Bureau, U. S. Department of Labor.

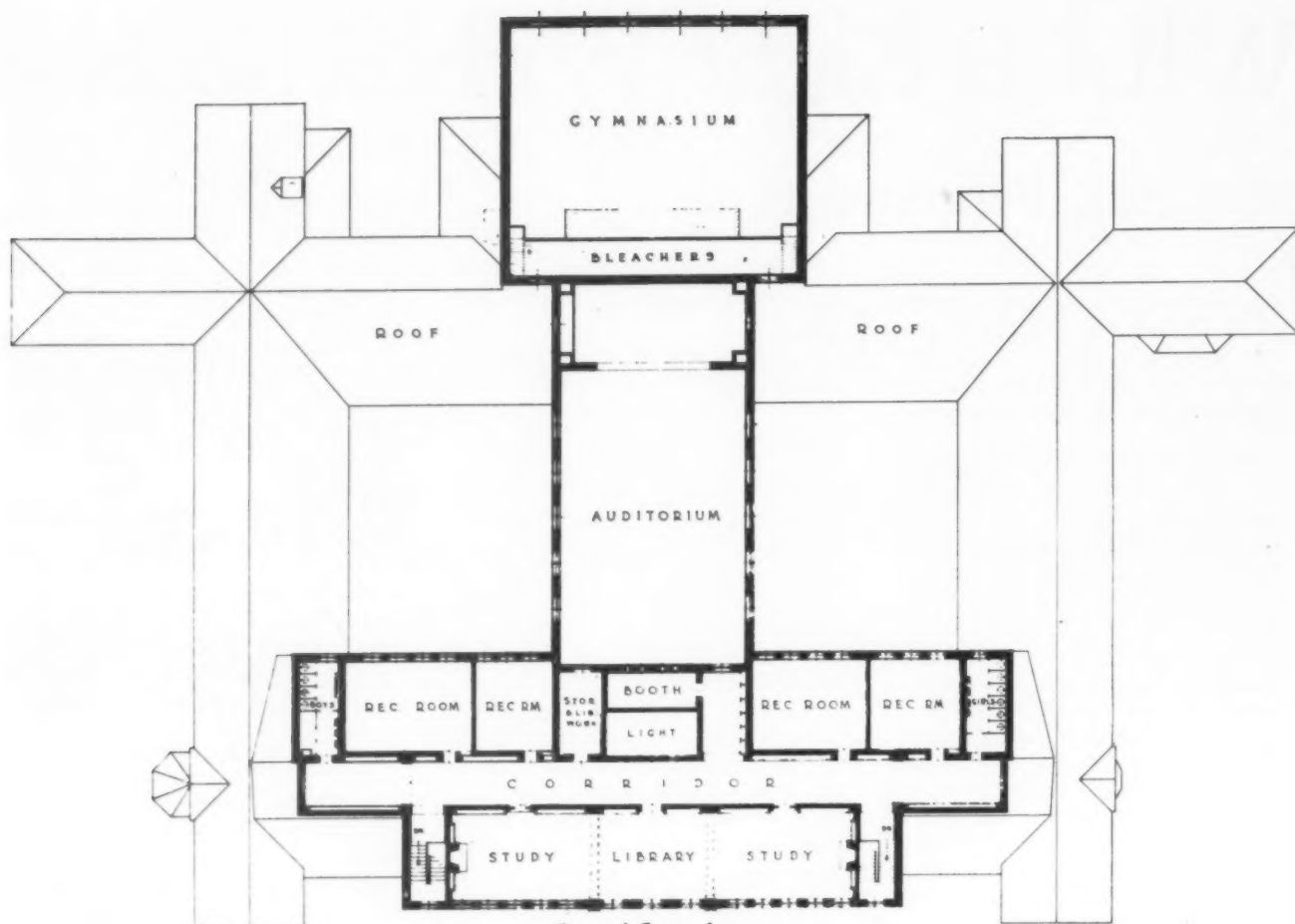
Address: "Federal Youth Services and the Schools," Charles H. Judd, director of education program, N.Y.A.

Division 2, Group C: "Public School Business Problems."

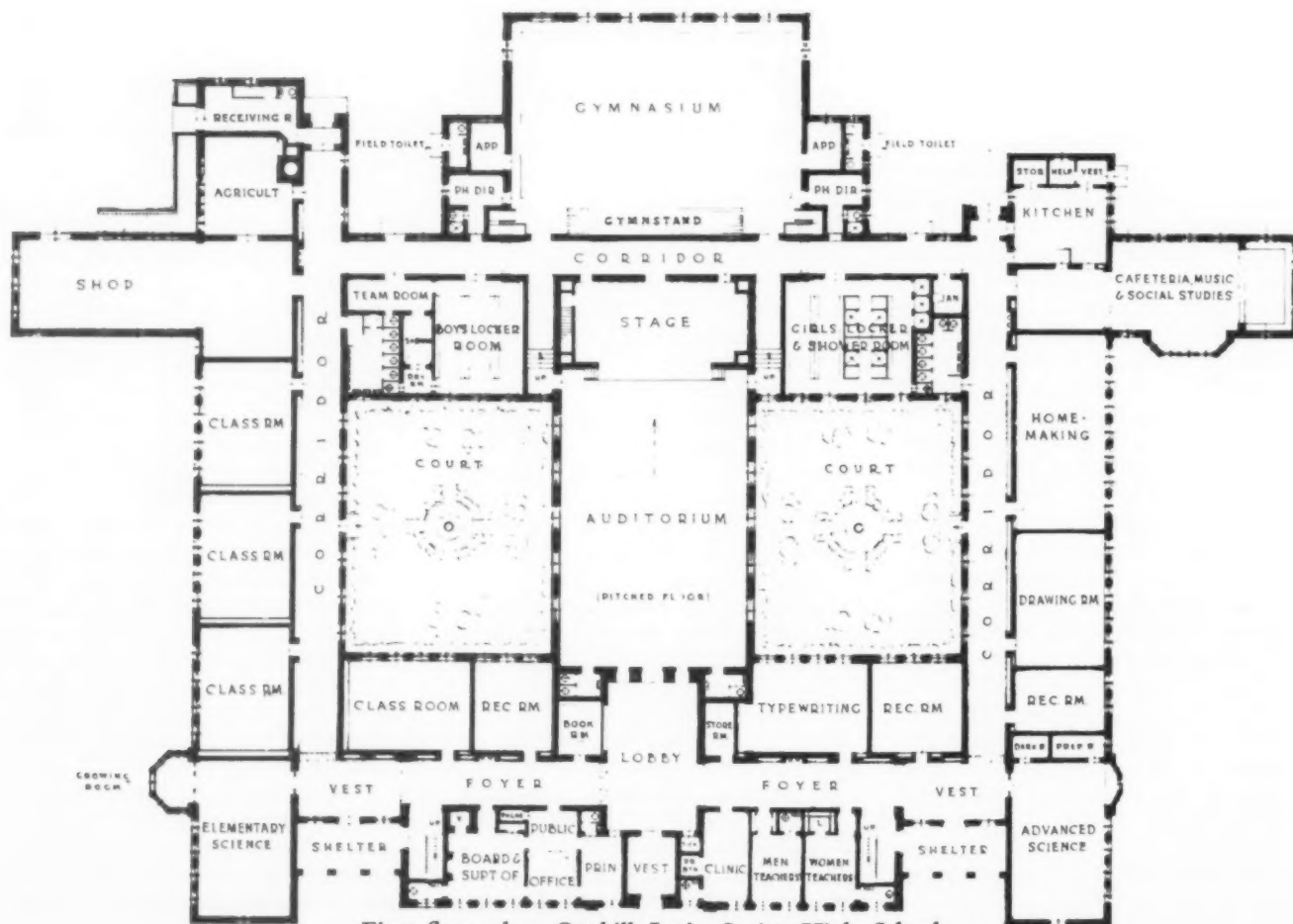
Presiding: George Melcher, superintendent, Kansas City, Mo.

Address: "What Constitutes a Long-Time Program for Business Officials," John Guy Fowlkes, educa-

(Continued on page 98)



Second floor plan.



First floor plan, Catskill Junior-Senior High School.



If the legend of Rip Van Winkle should be reenacted at Catskill today, Irving's scapegrace would return to find a new school with a portico, gables, elliptical windows and double chimneys, reminiscent of early architecture along the Hudson.

Catskill Continues to Pioneer

MAURICE S. HAMMOND and ERNEST A. SIBLEY

Superintendent, Catskill, N. Y., and Architect, Respectively

CATSKILL, the county seat of Greene County, New York, is one of the oldest settlements of the Hudson Valley. It is located about 30 miles south of Albany at the junction of the Hudson River and the Catskill Creek, a stream approximately 300 feet wide flowing through the center of the town. The streams, the lakes and the woods of this vicinity produce an abundance of fish and game. They also provide a setting of unusual natural beauty, rich in its geological formations. The population of the village is 6000 but this number mounts considerably during the summer when it plays host to hundreds of visitors who annually spend their vacations in this popular resort area.

Catskill was one of the first communities in New York State to appropriate money for public education. As far back as 1793 the sum of \$400 was raised for the erection of an academy at Catskill Landing. By 1804 there were three school buildings and the program was incorpo-

rated by the Board of Regents. One of the schools was devoted to the teaching of the Latin grammar subjects. About 1813 another school, frequently called the Academy, was built. During the first half of the nineteenth century a number of private schools were erected and went the way of the earlier institutions.

The present Union Free School was established in 1856 and became an academy in 1861. In 1869 an addition was voted for the academy at a cost of \$25,000. A larger appropriation was voted in 1882, in order that there might be comfortable space for all of the school children in the district.

The office of the superintendent of schools, created in 1893, was one of the first village superintendencies in the state. In 1896 a new elementary school was erected in the rapidly developing residential area at a cost of \$20,000. This building has served all these years and is still a center of education in the community. A second elementary school was erected

in 1907 at a cost of \$45,000, and this contained rooms for nine grades, including the kindergarten and additional offices for the superintendent of schools and the board of education. At that time the Catskill Free Academy building was given over entirely for high school pupils, the name having been changed to Catskill High School.

During the first thirty-five years of the twentieth century the schools kept in step with the times and added the new courses to the curriculum as they were requested. The buildings and equipment were paid for and for a period of seven years prior to the time when the old high school burned in March 1935 the village enjoyed a ridiculously low rate for school taxes. As one might expect, the plans for a new junior-senior high school received much attention. The members of the board of education, who are successful nonpolitical business men, took upon themselves the task of erecting a building in order that their children might have what everyone else had, plus a little bit more. A 23 acre site was



Intramural games, corrective exercises, classes for adults and social activities are carried on in this modern gymnasium.



A combination well-equipped shop is a place where education through activities takes place in this modern school system.

decided upon in order that the physical education program might receive its proper attention.

The property has a frontage of 800 feet on Catskill Creek and paralleling the creek and the school site is West Main Street, a semiprivate road one half mile long connecting the old North-South highway with 9-W, the new West Side route between New York City and Albany.

The site provided a natural setting for the high school building, in the form of a terrace about 250 feet from the street and 21 feet above the normal water level of the creek.

The exterior of the structure is a combination of brick and stone; its portico, its main gables with elliptical windows and its double chimneys, all are reminiscent of the old architecture of the Hudson Valley. The carved capitals of the portico columns were carefully proportioned after those of the 150 year old houses in the Catskill area.

The stone is native, taken from a near-by quarry; the brick is a local product. Heavy, rough black slate covers the roofs.

On the terrace at the front of the building is a flagstone promenade which stretches from the portico to the pupils' sheltered entrances at either side and out to the driveway. The broad, elliptical driveway is bordered by flag walks leading to the street.

The first floor of the building is the hollow square type of plan with the auditorium crossing the center, flanked on either side by a large court. High arched, low-silled windows on each side of the auditorium admit an abundance of natural light and air, affording to those seated in the room an unobstructed view into the artistically landscaped courts.

The first floor corridor is continuous around the main rectangle, providing access to the auditorium at either end, permitting any class to go to either right or left in passing and giving proper isolation to the gymnasium, shops and cafeteria.

The centrally located auditorium, with spacious lobby connecting with portico and the two sheltered exits at the front, assures smooth and speedy dispersal of any assemblage. The floor of the auditorium is bowled, with ample pitch for good sight lines. The wainscot is of golden toned artificial stone tile. The



Above: The library on the second floor is 100 feet long, with paneled wood mantels at both ends of the room. Woodwork is painted in blue-gray enamel with a faint hint of green and the plaster walls are gray. The furniture is maple. Right: Enclosed indirectly lighted exhibition cases. Below: The superintendent's office is a friendly place where educational policies are determined by board and staff.





Left: The projection room is a real workshop for the talking movie club. School experiences serve the boys as a vocation or as an avocation.

woodwork is painted in blue gray enamel with a faint hint of green, a color developed from the original paint formula used in rooms of Gadsby's Tavern, Alexandria, Va. Some of these rooms have been brought to New York City and incorporated into the American wing of the Metropolitan Museum of Art.

The plastered walls of the auditorium are painted sky gray. The ceiling, made of light ivory acoustical plaster, adds greatly to the effectiveness of the sound from the new 35 mm. talking movie machines.

The draperies at stage and windows are of velours, especially dyed to attain color harmony with the painted wood. The cyclorama on stage and the sheer glass curtains at the windows are of gold fabrics.

For the floors, mottled asphalt tile was developed to blend with woodwork and walls and the auditorium seating is fully upholstered in a rich shade of blue leather. The openings in the projection booth, when not in use, are artfully concealed by draw curtains of sky gray rep.

The chandeliers were designed in character, the glassware having been modeled after that found in one of the old Colonial churches.

Wide corridors flooded with natural light are wainscoted with hand-made faïence tile in tones of tan, gray green and light brown. The built-in corridor lockers are enameled in a blending shade. Recessed drink-

ing fountains of cloverleaf design are of gray green china. Corridor and lobby floors and woodwork match the color scheme of the auditorium.

One of the interesting school units is the library on the second floor front, a room 100 feet long, with paneled wood mantels. Book shelving along the inner wall accommodates about 3700 volumes. The woodwork, asphalt tile floor and arched ceiling recall the auditorium in materials and color effects. The furniture is of maple, especially designed and built in period style. A fireplace in each end of the room provides a homelike atmosphere.

The gymnasium is located at the rear and is one of the most popular and useful rooms in the building. It has modern equipment and a seating capacity for 500 spectators. The services of the school nurse and dental hygienist add to the effectiveness of the physical education program.

Convenient to the gymnasium is the cafeteria, designed with a stage. When closed off from the kitchen unit, the room serves for class purposes and provides extra facilities for band and orchestra and for dramatic work.

The homemaking department, with northeasterly exposure, provides a double area—one end for cooking, the other for sewing. The sewing room space is fitted with a rug, 18 by 22 feet, in two toned taupe and is furnished with sewing machines,

studio couch, easy chairs and drop-leaf tables. Built in across the end is a case containing cubicles for the pupils' work, a hanging closet, large trays and storage for card tables and folding chairs. On the back of one pair of folding doors are full-length mirrors. All the woodwork and the equipment—kitchen cabinets, ranges, sinks and refrigerator—are finished in ivory enamel. The wall covering is a reproduction of an old wallpaper found under many other layers of wallpaper in the old Stone Tavern at Calais, Vt. It has been treated with two coats of colorless glaze, making it washable.

The window draperies in the homemaking room are ivory and terra cotta, the terra cotta, or Indian red, being recalled in the banding on the ecru parchment light shades, in the asphalt tile floor and in the linoleum tops on the kitchen cabinets.

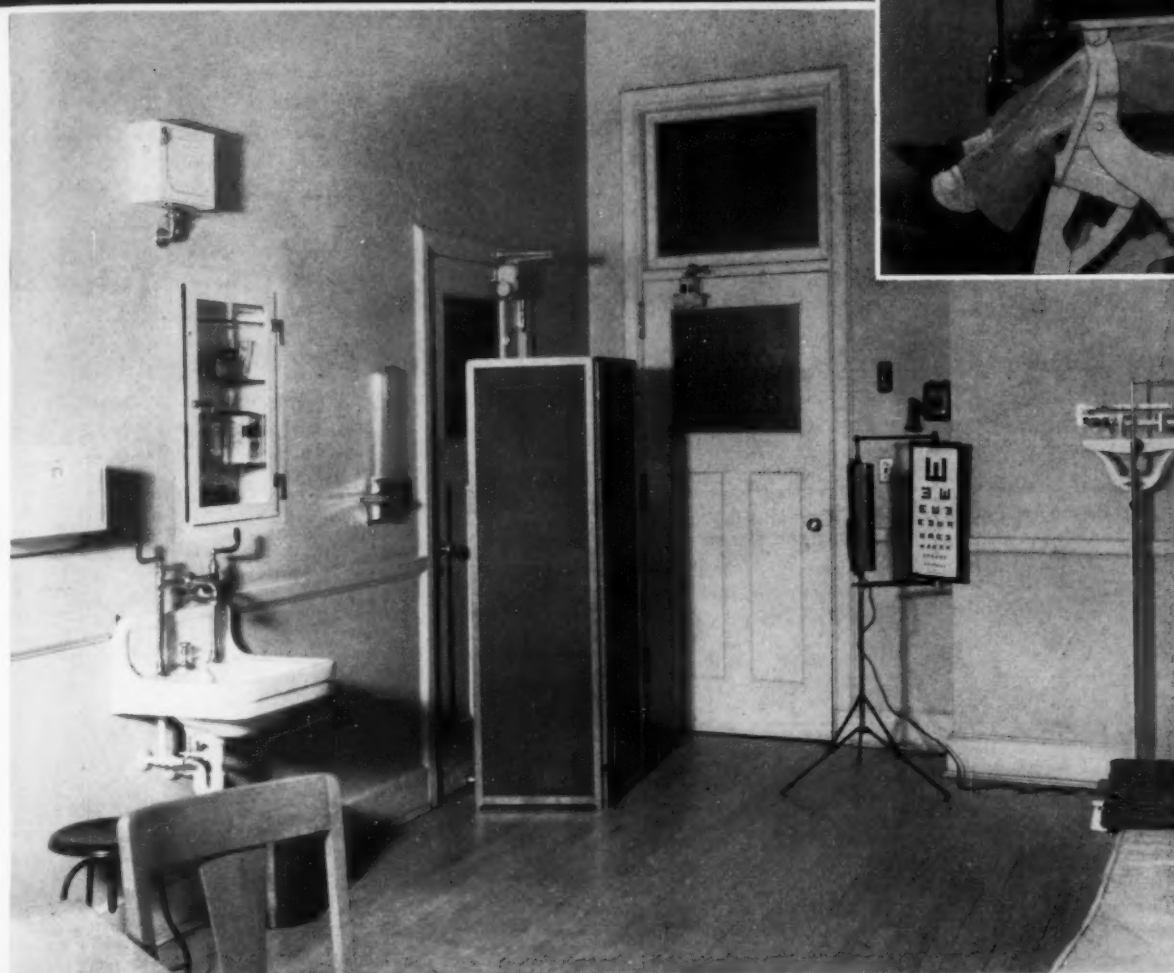
The junior high school classrooms are provided with large lockers at the rear, display board opposite the windows, blackboard at the front with the center section folding; the wall space back of folding boards is a picture screen.

The building, which contains more than one million cubic feet, cost, exclusive of ground and equipment, \$325,000. The construction is largely fireproof. There are main roof rafters, steel beams, with 2 inch plank roofing boards on which is laid heavy roofing felt and on this, a layer of slate. The floor construction throughout is reinforced concrete and slag block. All walls and pavilions are masonry. Ceilings are concrete slabs on bar joist suspended from steel rafters and trusses.

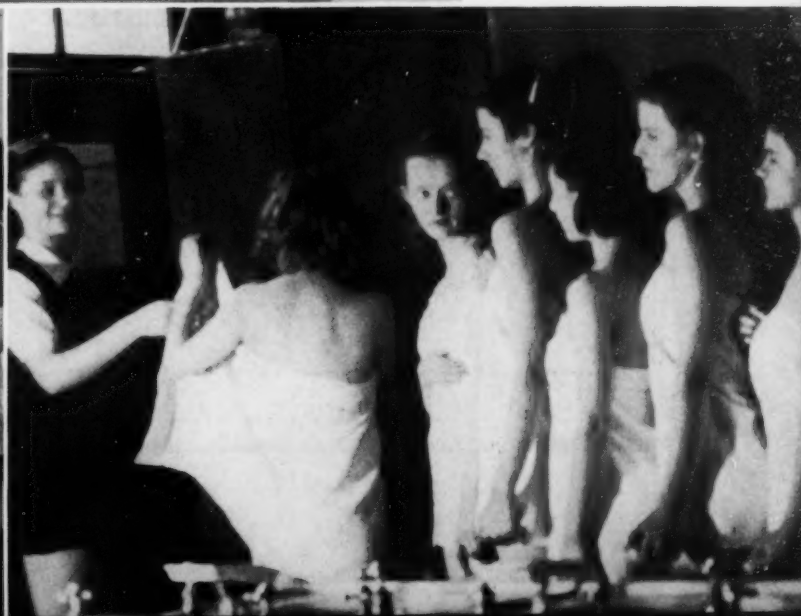
The heating system is low pressure, oil burning, vacuum steam, thermostat controlled. The ventilating is by unit ventilators connected to the brick chimneys or stacks.

With this junior-senior high school building as a beginning, the members of the board of education and the citizenry of Catskill contemplate a long-range program of education, expansion and beautification. A park, playground and educational center are now under way.

If the need arises, two additional wings are proposed for the present structure: one to house the junior high school separately; the other, a junior college.



HEALTH



Planning a Health

THE school health program has three major divisions. The first consists of service activities performed by the personnel to conserve, appraise or correct pupil health. The second division consists of instruction and practice, in which the pupil is both the active agent and the recipient. The third is administration.

The health unit of a school plant is not a luxury. The subjective satisfaction derived from pleasant surroundings, ample facilities and adequate equipment undoubtedly favors performance.

Only by careful analysis of various factors preliminary to drawing plans is it possible to uncover the needs upon which specifications are based. These factors cannot be standardized but the following list is suggestive: (1) pupil enrollment, present and anticipated; (2) health service personnel; (3) present size of building and provision for expansion; (4) area to be served; (5) range of service; (6) class of school; (7) program requirements; (8) social and economic status of district; (9) cost; (10) pupil health status; (11) accident record;

(12) safety hazards; (13) light; (14) guidance service and possibility of a combination unit; (15) water and sewage disposal; (16) acoustics; (17) heat and ventilation; (18) furniture and equipment; (19) storage; (20) construction materials; (21) privacy; (22) color; (23) waiting room; (24) clerical service; (25) orderly traffic; (26) efficiency, and (27) location.

In planning the health unit, two approaches must be taken. One is from the architectural point of view; the other is the analysis of function. The first phase belongs properly to the architect but the second is definitely the concern of the school administrator.

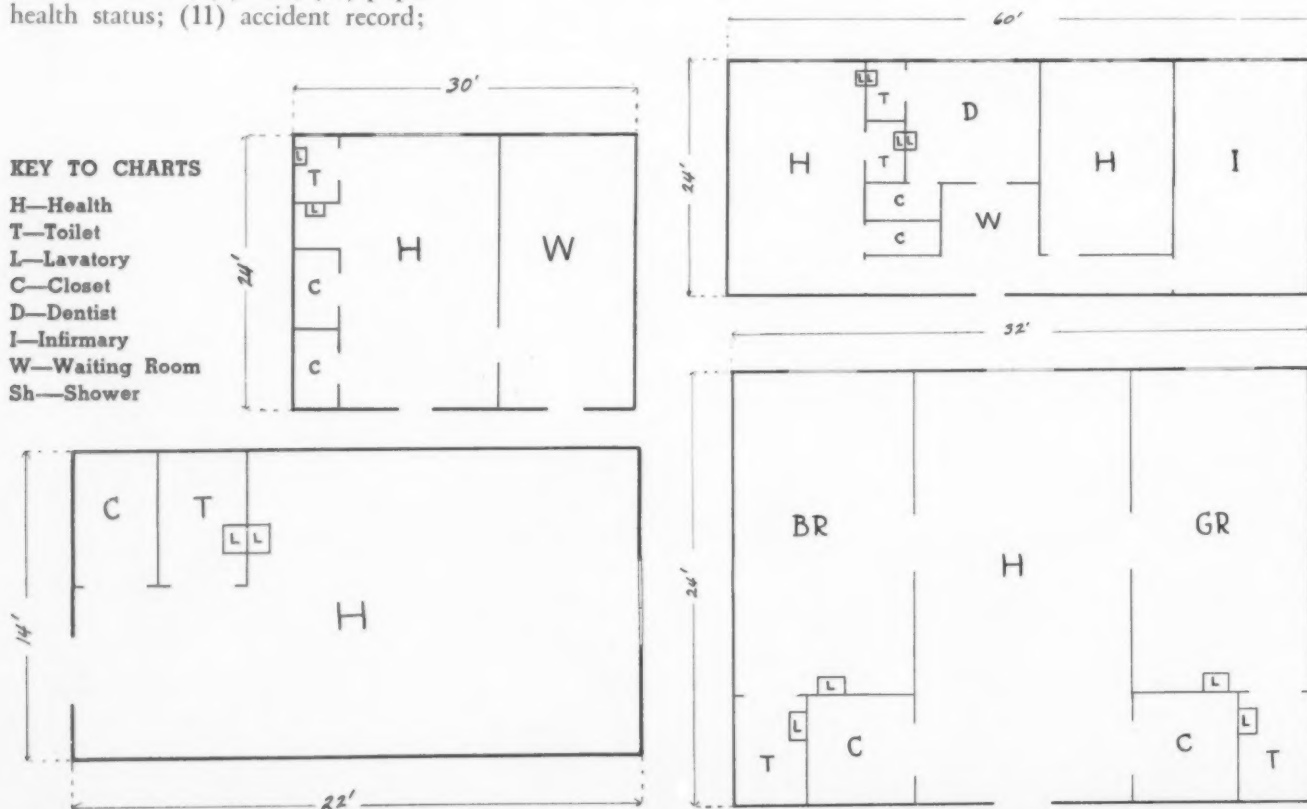
If no health program has been developed or if the one in current use

is old or admittedly unsatisfactory, the planning of a health unit should be held in abeyance pending the completion of an acceptable program and of definite objectives.

There is no one standard health service program having unanimous approval. Consolidate several of typical programs and their functions fall into a classification somewhat as follows: (1) good example of clean, attractive, adequate facilities; (2) health inventories; (3) diagnosis; (4) correction; (5) first aid; (6) conferences with pupils, teachers, parents, staff associates and agents of community health organizations; (7) records; (8) instruction; (9) guidance; (10) bathing; (11) rest; (12) measurement; (13) employees' health;

KEY TO CHARTS

H—Health
T—Toilet
L—Lavatory
C—Closet
D—Dentist
I—Infirmary
W—Waiting Room
Sh—Shower



Service Program

and WILLIAM P. UHLER JR.

Health, Safety and Physical Education
Department of Instruction

(14) immunization, and (15) laboratory tests.

Given a service program, an accurate conception of functional requirements and confirmation of pupil health needs, the designer evaluates the elements, first, in the light of specifications and, then, by comparison one with another, until eventually in the process of matching and rematching he achieves the design manifestly best suited to the situation. This should be checked against the opinions of associates, particularly the health staff, and then recast as a tentative plan, ready for the technical refinements of the architect and draftsman.

In locating the health unit the factors worthy of consideration are:

1. **AREA OF SERVICES:** One school or several? A central unit to serve several schools should either have a separate entrance or be located by or sufficiently near an entrance to permit direct access.

2. **RANGE OF SERVICE:** School only, or infant welfare, preschool children, nursery school, special classes and adults? A general service unit should be located near an entrance or, preferably, have its own door.

3. **VISITORS:** For convenience of parents invited to attend examinations or to confer with the staff, the unit should be near the main entrance or close enough to be found easily with the aid of signs.

4. **TRANSFER OF EMERGENCY CASES:** Easy, quick, unobserved removal to

home or hospital requires an exit close to a driveway or street.

5. **CENTRALIZATION OF RECORDS:** In schools using the composite record or a multiple record folder or envelope, the health unit must be placed next to and connected with the administration office.

6. **QUIET:** Essential in certain phases of the health examination and to the hearing test; important quality for an infirmary.

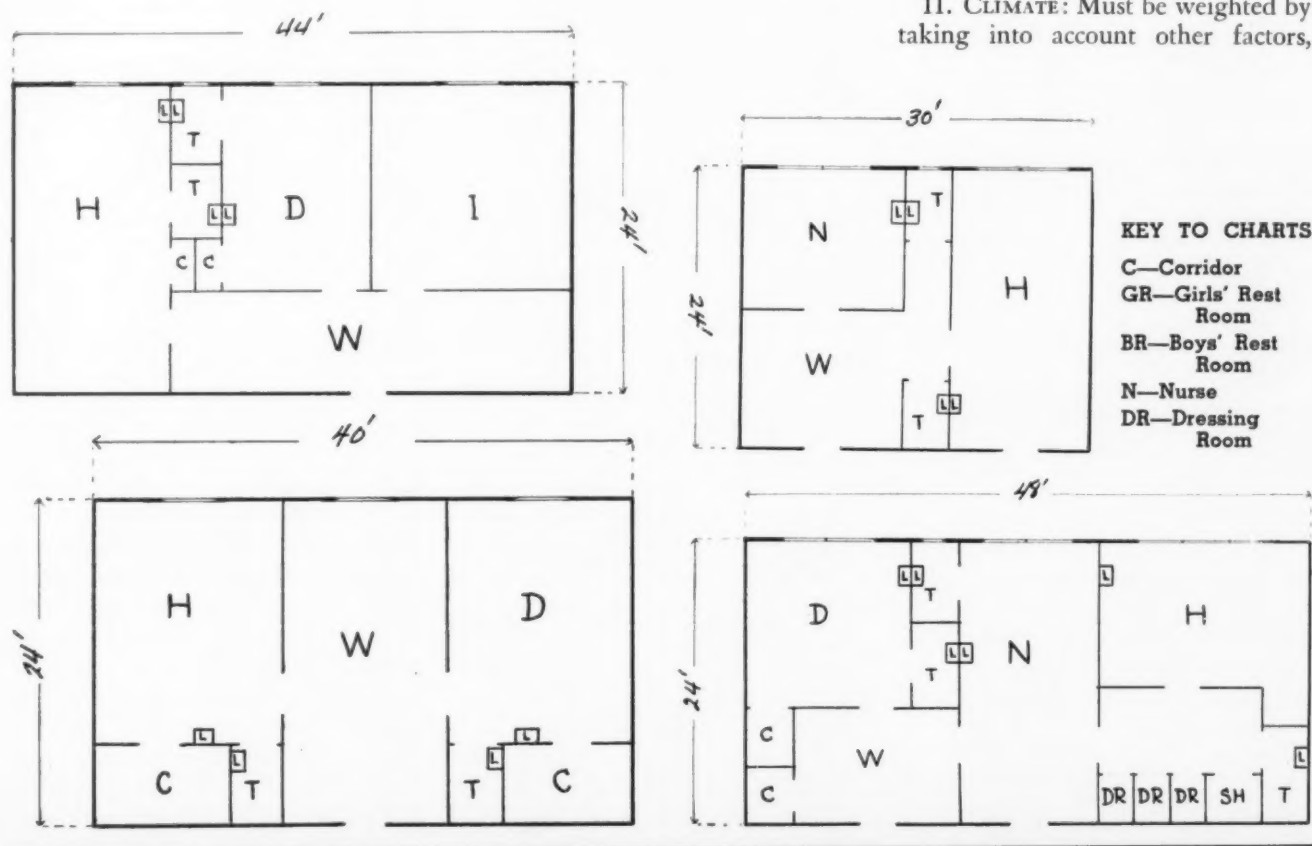
7. **LIGHT:** Especially important to the dentist and the examining physician; northern exposure favored by dentists.

8. **SUNSHINE:** Contributes to the cheery atmosphere characteristic of a health unit.

9. **PSYCHOLOGIC AND GUIDANCE SERVICE:** Greater coordination of correlative health services is desirable and inevitable. In planning new buildings, these units should be united or at least contiguous and connected.

10. **PLACE OF ACCIDENTS:** Of little or no importance.

11. **CLIMATE:** Must be weighted by taking into account other factors,



HEALTH IN THE SCHOOL

such as effectiveness of the heating and ventilating systems, quality of construction, protection afforded by near-by structures and use of awnings.

12. WATER SUPPLY AND SEWAGE DISPOSAL: Relates only to location of units being planned for old buildings and where economy prohibits additional plumbing. In planning new buildings the location of the unit should be determined by other factors and plumbing provided accordingly.

Various considerations favor a first floor location, preferably adjacent to the administration office. Only

slightly less favored is a location opposite the administration office in the main entrance corridor or the lobby.

A unit of more than two rooms with such accessories as toilets, dressing compartments and storage closets presents the problem of relationship.

From a study of the accompanying plans, a few fundamental principles will be apparent. Effort must be made to save the nurse's steps. Medical and dental rooms should be adjacent and connected. Lesser examining rooms, the first-aid room and the laboratory compartment should be offshoots of the main ex-

amining room. The infirmary should be located so that through traffic is never necessary.

Pupils' dressing rooms and toilets should connect with the examination room in order to facilitate supervision. It is desirable that pupils reporting for dental service only be able to enter the dental clinic directly from the corridor or waiting room. This is difficult to achieve when but one nurse is on duty and when no clerk is provided in the waiting room. The space having the strongest light should be allocated to the dentist unless he prefers to use artificial light entirely.

Other important considerations include the following: (1) good acoustics; (2) cheerful color scheme; (3) rounded floor corners and coved baseboards; (4) one wide doorway for stretcher use; (5) one or more electrical outlets in all walls of each room; (6) broad high windows for examining room and dental clinic and direct overhead artificial lighting; (7) indirect lighting in other parts of the unit, especially in the infirmary; (8) thermostatic unit with temperatures between 68° and 72° F., higher in the examining room and lower in the infirmary; (9) adequate and noiseless ventilating equipment; (10) wall-hung toilet bowls and urinals; (11) foot or knee operated wash basins.

The tendency in planning is to compute dimensions on the basis of the standard classroom. Frequently by this method the health unit is from one half to three fourths of the classroom unit, leaving one half or one quarter for a storage room, toilet or an office. This is satisfactory, of course, if circumstances necessarily limit the health facilities to this space. The health unit lends itself to convenient subdivision by use of partitions; thus small compartments are made readily available as needed.

The only dimension to be remembered is the 20 feet required by the Snellen vision test plus 2 feet for standing space. This 22 feet must not be in line with windows or other source of light and it should not be in line with a door regularly used.

Ample closet space is desirable, with closets for different purposes.

Check List of Equipment for Health Unit

Waiting Room

- Bench
- Settee or chairs
- Bookshelves or bookcase
- Magazine rack
- Table for exhibits or literature
- Clothes rack
- Umbrella stand

When Used as Reception Room

- Desk and chair
- Small file cabinet
- Clock
- Waste basket
- Rug or linoleum

When Used by Clerk

- Typewriter
- Large file cabinet
- Telephone

Health Examination Room

- Flat top desk with chair
- Records file
- Chairs for parents
- Adjustable stools, hospital type
- Instrument cabinet
- Supply cabinet
- Medicine cabinet, with lock
- Adjustable examining table
- Portable screens
- Mirrors
- Quiet clock, not on school system
- Scales, large and small
- Electric sterilizer and stand
- Basins, assorted sizes
- Stadiometer or measuring board
- Silhouetteograph
- Pedograph
- Audiometer
- Illuminated vision test chart and adjustable stand
- Inhalator
- Stretcher
- Color blindness test equipment
- Portable basin stand
- Towel rack
- All-purpose table
- Laundry hamper
- Liquid soap reservoir
- Paper towel container
- Paper cup container

Health Examination Room, Cont.

- Waste container for cups and towels
- Waste container, small, with foot operated cover for discarded dressings and bandages
- Bulletin board
- Electric fan
- Electric heater for emergency use
- Linoleum floor covering

Dental Service Room

- Adjustable dental chair unit including light
- Electric motor
- Water supply
- Cuspidor
- Instrument stand
- Instrument cabinet
- Supply cabinet
- Work table or bench
- Chairs
- Desk and chair
- Waste containers
- Table with toys and literature
- Linoleum floor covering
- Clock
- Mirror
- Electric fan
- Electric heater

Infirmary

- Cot beds, enameled iron or chromium plated finish
- Mattresses, with washable covers
- Blankets
- Bed linen
- Pillows
- Adjustable bed, hospital type
- Portable screens with washable covers
- Bedside stands
- Chairs
- Low bedside stools
- Bookshelf or bookcase
- Magazine rack
- Linoleum floor covering
- Phonograph and records
- Stand for phonograph
- Cabinet for records
- Detachable bed lights
- Pictures for walls
- Air deflectors for windows

Plant Plays Its Part

FRANCIS R. SCHERER

Architect and Superintendent of School Buildings, Rochester, N. Y.

BOARDS of education and school officials have the obligation and responsibility of safely housing the boys and girls in their schools. Entering at ages as low as 3 years and remaining on through the late teens, spending many hours each school day within the school building and on the school grounds, these children, as well as their parents, have the right to expect that adequate safeguards are taken to assure that physical well-being is not jeopardized during the educational process. Many things about the school building and grounds have a direct bearing on the health and safety of the occupants.

Without exception the most important item in connection with the school plant is its water supply. When local authorities do not have the facilities to determine the quality of the water, the responsibility for testing it should be passed upon by the state authority having jurisdiction. When it is determined that the water is satisfactory as to quality, it is the concern of school officials that water be available in sufficient quantity to afford full safeguards for health and fire protection.

Sanitary System Important

The plumbing or sanitary system in the building constitutes another factor important from the health point of view. There must be an adequate number of facilities of the various types with installation made in accordance with the sanitary code having jurisdiction. If there are locations where no code has jurisdiction, then the matter should be taken up with the state department of health, which will give assistance in the planning of new facilities as well as in the correction of existing faulty installations.

The location of toilet rooms within a school is made so as to minimize vertical travel and to avoid congestion in corridors and stairhalls. Present practice is to provide at least one toilet room for each sex on each floor.

The National Council on Schoolhouse Construction, in its suggested standards for school planning, has recommended the use of vitreous china water closets of the extended lip or elongated rim type, with toilet seats of impervious materials having open fronts. The heights recommended for these are 10 inches for elementary grade pupils and 13 inches for junior and senior high school pupils.

Many Drinking Fountains

Sanitary drinking fountains should be available on each floor, located in corridor niches near the toilet rooms. Handwashing facilities should be provided inside the toilet rooms of high schools and either inside the toilet rooms of elementary schools or in a corridor niche at the entrance to each toilet room. It is desirable to place a mirror over the wash basins in elementary schools to encourage children in habits of tidiness. In the high schools mirrors should likewise be provided but, in girls' toilet rooms especially, these should not be placed over wash basins but rather above a long shelf, placed to hold books and personal articles of the pupils.

Handwashing facilities at or near the entrance to the cafeteria are desirable. When the signal sounds for lunch period, the desire to get there in a hurry frequently defeats any orderly process of stopping at the toilet rooms on the various floors.

The heating and ventilating of the buildings are important factors in this matter of health. Although one group favors open window ventilation while another believes that some mechanical means is essential, all agree on the fact that it is important to maintain a continuous fresh air supply to all rooms. Also, there appears to be a general agreement as to a temperature range of between 68° and 70° F.

In those regions in which low winter temperatures prevail, the mois-

ture content of the air gets so low as to make desirable the introduction of additional moisture. This raising of the relative humidity makes for comfort within the suggested temperature range. Without it complaints will be registered by teachers and pupils that rooms are too cold, particularly if the movement or diffusion of the air is rapid.

Then there is the item of natural and artificial lighting. There is a feeling that the problem of lighting has not as yet been satisfactorily solved and that additional research work will be done over the next five years. Much remains to be learned with respect to orientation, ratio of glass to floor area, size and relative position of windows and intensity of artificial light. Our schools should, however, provide the best lighting possible on the basis of information now available. Children should be furnished the amount of light that will enable them to carry on their work with least strain upon their eyes consistent with the long-range effect upon their nervous systems.

Posture and Seating

Pupil seating is one of the most significant items in connection with the school plant. It has an importance far beyond its proportionate share of the cost of the total plant, primarily because it is so directly concerned with the health and comfort of the child. In many schools the child is required to occupy the same seat for five or six hours each day.

The seat should be fitted to the pupil so that the distances from the floor to the seat and from the seat to the desk top are such as properly to accommodate the boy or girl who uses it. Modern seating provides for these adjustments and it remains only for school authorities to see that they are made at the beginning of each term.

Another feature the importance of which is not commonly recognized is the depth of the seat from back

to edge. There will be some pupils for whom the regular seat is too deep, making it difficult for them to sit straight. In such cases the school's maintenance man or its manual training shop may well cut back the edge so as to provide a few seats of lesser depth. Older seats that do not possess adjustable features are usually present in several sizes and it is possible, therefore, to approach a desirable arrangement by a shifting about of seats until those that best fit the pupils are found.

This matter of seat shifting should be the responsibility of the school principal and should require his attention at the beginning of each school term. The problem of adjusting the seats may well be detailed by him to the health or physical education teacher when such a person is available.

There is a marked tendency toward the use of movable seats in elementary schools. Sometimes school systems desire to change from stationary seats to the movable type but cannot make the change immediately because of lack of funds. A compromise arrangement consists of removing the stationary seats from the floor and fastening them on skids.

The importance of seating was recently recognized by the school plant research committee of the American Council on Education, which is about to conduct studies on school furniture, with particular emphasis on seating.

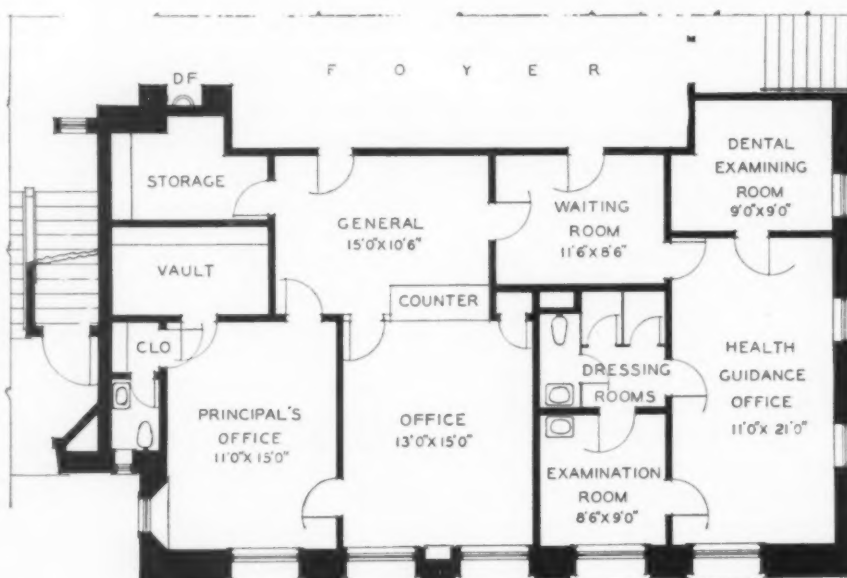
In matters of health we should give recognition to a branch of the system whose services usually go unheralded. The care of the school plant by an understanding janitorial force is a factor of considerable importance. Clean floors, walls and furniture are matters of daily routine which make for healthful surroundings. Frequent cleaning of lighting fixtures and windows improves light intensities, while the proper operation of the heating and ventilating equipment makes for comfort throughout the day. As a general rule these tasks are performed in the light of diminished appropriations. Appropriations must not be reduced to a point at which the health of the pupils becomes endangered.

Designed for Guidance

AT HARTFORD, Conn., health guidance is a responsibility of the board of education and in remodeling old buildings it is the policy to take one classroom for a health suite. Dental treatment is not provided, but a dental hygienist is employed to help the dentist make his examination and to do cleaning.

In planning the health suite in the new Lawrence School the same procedure was followed, although the

A second important advantage in this arrangement is apparent when parents, social workers and others come to the school for conferences. Since many of the health problems of children have educational implications and vice versa, it is both time-saving for the school and advantageous to the pupil to have those members of the school's staff responsible for making adjustments confer with the parent so that a



architect was able to condense the required facilities into a somewhat smaller area than a typical classroom. Probably the outstanding feature of this health guidance suite is its proximity to the administrative suite. The fact that the two suites are adjacent makes it possible for the school to integrate more fully all its pupil personnel services. There are several advantages to such an arrangement.

First, the pupil's cumulative record folder, which is kept in the central office, is always accessible to members of the health service staff. Likewise, the pupil's health record card is available at all times to the administrative staff. This ready accessibility of records to all members of the staff eliminates the necessity of making duplicate copies and encourages the full use of these records.

sound program for the child's entire day can be established.

The continuity of the two suites is also carried out in the color scheme. A light value of green is used to tint the walls, with the furniture finished in a darker value of the same color. This interior decorating of the health guidance suite, along with its central location, does much to prevent it from being set apart from the rest of the school as was the typical "clinic" or "medical inspection room."

In addition to the health guidance suite, space is provided elsewhere in the building for a baby clinic conducted by the Visiting Nurse Association under the direction of the city board of health. To this clinic mothers come with their infants for instruction in the care of the baby.

Evaluating the Entire Program

JOHN J. LEE

General Adviser, Department of Special Education
College of Education, Wayne University

THE time is here when our schools need to review their function and responsibility pertaining to child health. Entire school programs need to be evaluated critically to determine what health values they are creating or are failing to create.

The first danger that we see where health education has pursued a traditional program and where its program has remained narrowly departmentalized is that in such instances "health" as a school function is not adequately integrated or properly related throughout the school program. This can result in certain departments promoting certain health goals and values, while at the same time they are being violated elsewhere in the school.

In the second place, it is still too often true that departments of health education are compelled through local pressure to win games at too great a price.

Outcomes as they affect pupils may be negative as well as positive. An experience that is beneficial to one child or even to most children may be harmful to others. This is particularly true with handicapped children, who constitute between 10 per cent and 20 per cent of our entire school population. Schools must continuously diagnose pupil needs and then adapt instructional procedures in light of those needs.

Often out-of-school influences affect the health of the child so that special care and remedial procedures are required in school. This levies upon the school the necessity for adult education programs in health and for cooperative relationships with public health, social and character-building agencies.

Health education departments now must promote a more comprehensive program. The Michigan

State Department of Public Instruction lists these areas: (1) nutrition; (2) sleep and rest; (3) healthful environment; (4) play; (5) exercise and recreation; (6) freedom from

defects and prevention of communicable disease; (7) health examinations; (8) relation to growth and child development; (9) dental health; (10) safety and first aid; (11) public health; (12) mental hygiene and (13) human relationships. Thoroughly organized procedures and programs need to be developed and maintained in all of these areas.

How Good Is Your Health Program?

QUESTIONS

1. Is the school meeting its responsibility for accident prevention and safety for children from the time they leave their homes until they return?
2. Is the school providing a thoroughly healthful environment?
3. Is the school meeting its full responsibility for guiding children in normal, healthy growth and is it helping them acquire all desirable health habits?
4. Is the school meeting its responsibility in training in desirable attitudes: honor, fairness, regard for pupils' own rights and rights of others; in wholesome mental hygiene and in all personal attributes of character?
5. Is the school making adequate provision for individual pupil health needs through regular and frequent examinations to detect nature and extent of physical handicaps?
6. Does the school maintain an adequate instructional program from every standpoint of providing necessary therapeutic exercises for correcting individual pupil handicaps; also from the standpoint of adjusting instructional materials and procedures in relation to those pupil needs?
7. Is the school exercising extreme care in staying well within the "physiological limits" of children and is it strictly avoiding the creation of functional and organic physical handicaps?
8. Does the entire school and does every teacher know the symptoms of the common communicable diseases and does the school have an organized procedure to prevent the spread of epidemics?
9. Are the content and procedure of the instructional program, particularly in the early grades, adapted to children's interests and capacities?

COMMENT

School responsibility, training in pupil responsibility, safety patrols, playgrounds, laboratories, shops; in fact, entire school plant and program.

Cleanliness and sanitation in every part of building; maintenance of every requisite in heating, lighting and ventilation.

Nutrition, sleep and rest, play and exercise.

Essential educational values in developing personal and social competence.

School clinics; cooperation with public health agencies, family physicians, medical specialists and parents.

Corrective exercises, rest, lunch, transportation, special class facilities for all pupils in accord with individual needs and handicaps.

Inadequate school lighting and over-exercise of eyes lead to tired eyes and permanent vision handicaps. Strainous exercise may be reason for apparent rise in frequency of heart disease among children.

Control of disease before it reaches epidemic proportions by cooperative planning with homes and public health agencies.

Academic goals and pressures may be far beyond pupils' capacities or foreign to their interests.

School May Be Health Center

E. R. STEFFENSURD

Principal, Washington-Lincoln Schools, Chisholm, Minn.



School and parental conferences on behalf of the child are a valuable part of the nurse's routine and health program.

EVERY school administrator has pondered the school health problem in his community and has tried with varying degrees of success to meet its challenge. At Chisholm, Minn., a city of 10,000 inhabitants, located in the mining area of northern Minnesota, the health education issue has been especially difficult because the district represents one of the last pioneer immigrant frontiers of the Northwest.

The student body is comprised largely of first generation Americans. Different standards and concepts of hygiene prevailed in these homes and placed a definite responsibility upon the schools for the formation of a health program that would reach all children and make itself effective. In these matters our educational philosophy has been predicated on a habit-forming hypothesis in the elementary field and has been continued and supplemented with informational data on the secondary and adult education levels.

Teachers in the system are required to have a working knowledge of child hygiene which they must apply daily in a practical way. Through carefully kept records, case

histories, remedial accomplishments, parental contacts, teacher observations, health staff analysis and diagnosis, those responsible for the child's health development in school have discovered in some degree the specific health needs of individual pupils.

From a meager beginning, the school has gradually extended its health services so that for the last two decades it has employed on a full-time basis a school physician, dentist and nurse working in a centrally located school health clinic, functioning on a twelve months' basis.

The eight school buildings in the district are visited daily by the school physician and nurse. Each child returning to school after an illness must be readmitted to the classroom by the staff members of the health department. At the beginning of each day's sessions, pupils absent because of illness are reported immediately to the school nurse, who makes the home call and reports the situation to the building principal within a period of two or three hours. In cases of suspected contagion, the school physician makes a

second call at the home and excludes the absentee from school until a diagnosis has been made and reported by the family physician.

A careful followup of each case of illness is practiced at all times. This gives school authorities an excellent index of the community's current health picture. It also brings to the home specialized professional service.

Complete physical and health examinations are given to all pupils annually. The nursery, prekindergarten and elementary pupils are examined during a summer vacation roundup period. Examinations for pupils in the secondary division are completed during the first month of each school year. A permanent cumulative record of each pupil's physical examination, as well as a disease and correction report, is kept and follows him from grade to grade throughout his school career. An abbreviated form of this record is given to each teacher annually, so that she is objectively informed on each pupil's health status. These individual data are supplemented with a room and building "physical defect summary," which is provided to all special teachers and building principals.

All physical defects are reported to the pupil's parents and efforts are made to have defects corrected as soon as possible. Detailed tests of vision are made by the school physician with modern equipment for this purpose. When glasses are prescribed, they are furnished to the pupil on a cost basis.

Upon the parent's or guardian's written request, the school health department provides protective measures in the form of tuberculin tests, smallpox vaccinations, diphtheria, typhoid and scarlet fever inoculations. The department collaborates with special teachers of physical education, sight conservation and speech correction, providing a helpful serv-

HEALTH IN THE SCHOOL

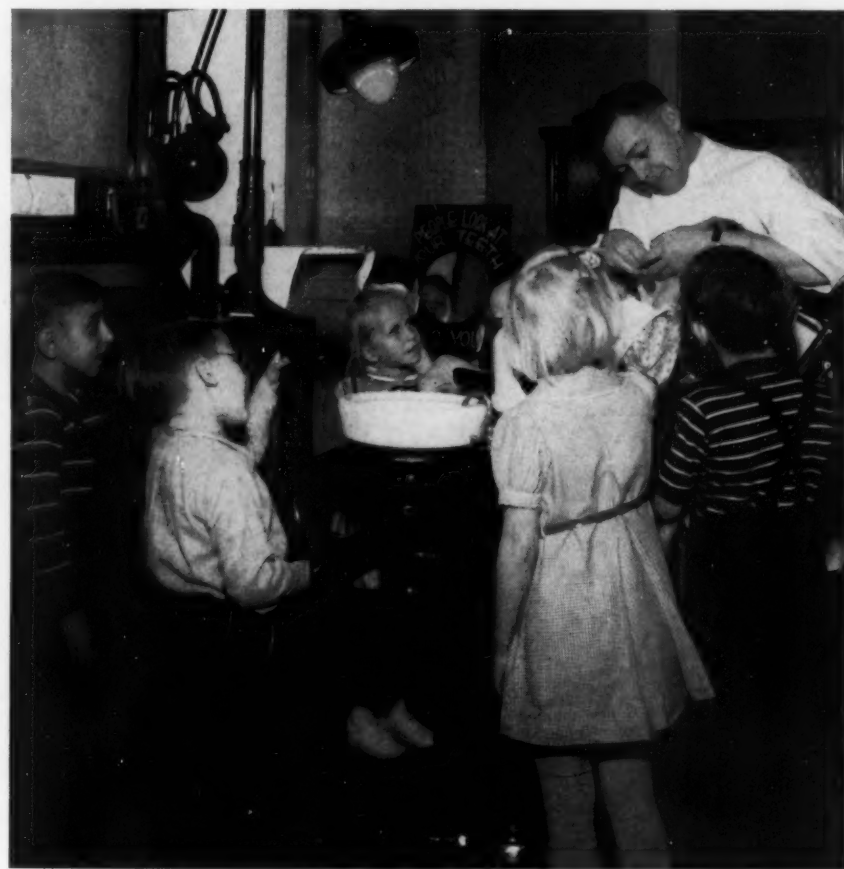
Right: A session in the school dental clinic. Children in the lower grades come in groups of five and six. Each is given an assignment as dental assistant.

ice in all cases requiring special attention and remedial treatment.

In addition to giving first aid and emergency treatment to all pupils, the health department staff gives free medical examinations to school employees. Doctor and nurse have given both the standard and advanced Red Cross first aid courses to the maintenance and instructional personnel. The school nurse gives special health demonstrations and assists secondary teachers in their classes in home hygiene and care of the sick. In the elementary grades, she takes the weight and height measurements of all pupils, supervises the daily health inspections and is a valuable link in the school and home conference chain. Both doctor and nurse assist in all parental conference groups where the health of the school child is discussed.

For several years the pupil health examinations revealed a widespread neglect of the teeth of pupils in all departments. Since diseased teeth are assumed to be responsible in some measure for ill health and have a relationship with cases of anemia, indigestion, infectious diseases and complications associated with the heart and ears, the policy-forming department of the district deemed it advisable to employ a full-time school dentist. The child early in life learns the importance of regular trips to the dentist, acquires the toothbrush habit and is taught the place of proper foods in building strong teeth. This prevents the loss of many of the permanent teeth, lightens the task of the family dentist and obviates the need for painful and costly experiences later in life.

Dental examinations are an integral part of the summer health roundup program of prekindergarten and elementary pupils. Those in the secondary schools are examined early



in the school year. Actual repair work and extractions are available, upon parental authorization, to all pupils from the kindergarten through the sixth grade. Prophylactic treatments and reparative activities are limited to the deciduous teeth and first permanent molars. Parents are always in attendance with the nursery and prekindergarten children and through these health examinations are given firsthand information on the corrective and remedial work required. All conferences are arranged on an appointment basis.

The school dentist is not only a capable practitioner but a child psychologist. Kindergarten pupils react well considering their age and size. Children in the lower grades come in groups of five and six and their reciprocal responses are of the best. Each is given some assignment about the chair or office and feels his responsibility as the dentist's assistant. Thus the timid have their courage bolstered and the ill-tempered calm down in the face of criticism by their colleagues. While 79 per cent of the

kindergarten children entered school with defective teeth, only 8 per cent are similarly situated seven years later when they complete the elementary schools.

Supervision of the dental hygiene periods in all grade buildings is part of the school dentist's routine. Children from the kindergarten through the fourth grades receive toothbrushes and paste from his office and each day have a regularly scheduled period for this activity. The youngsters are taught, through actual practice, how to use this equipment and are encouraged and expected to do similarly in their home surroundings.

Annual per capita costs for school health service in our community approximate 92 cents. Per pupil costs would place the figure in the vicinity of \$3.96 annually. No financial yardstick can measure the returns this service has rendered in the prevention of health deterioration and in the development and appreciation of the peculiar functions of the school and home in a community health program.



Every child develops health consciousness when an interest in physical problems is shown by health officials.

The Role of the County Nurse

CLAIRE GASTON

Children's Fund Nurse
Gladwin County, Michigan

EARLY in September the school nurse drives over a bumpy dirt road to the little Rose Valley School to give a rapid school inspection and to prepare the teacher for the coming year. It is recess for the smaller children. They run up to help carry the nurse's bag and pamphlets. One shows her a cut finger and another is eager to tell of the new baby at home. Before coming to the school the nurse had time to review a list of the families in this district so that the names, at least, are familiar.

Upon entering the schoolroom, all class activities cease while the inspection is made. During this time, the new window decorations are shown with great pride, the last report of the health club is given, the spiders in their glass bottles are exhibited

and there is a short discussion as to their diet. A few children have abnormal skin conditions and ask questions.

The nurse then has a few minutes to spend with the teacher to find out about the whole district, the preschool children, the infants, the new town hall, the roads and cases of illness among the adults. If there is still time that morning, she visits a few homes before going on to the next school. She experiences an understanding with her families because there is a direct relationship among the child, teacher and home.

The teacher in the one room school, however, is often of the "old school" and is unable to teach health except through the medium of a textbook. If there is a contagious disease

problem, she cannot vary her program because she has not planned to discuss communicable disease until February, "the board will not give her new towels" or "correct the insanitary condition of the toilets." The nurse has so much territory to cover that she can spend little time in one section and often can visit the same school only once or twice a year.

It is again early September and the nurse is entering a consolidated school. She parks her car beside many others. On the way through the halls, classes are changing and pupils stop to ask her a few questions.

When the nurse reaches the superintendent's office, the plan for the whole year is made out with his help. A weekly clinic is to be held every Monday afternoon. At this time the

HEALTH IN THE SCHOOL

teachers may refer pupils to the nurse. Once a month, at the same time, the county doctor will see pupils who ask for appointments. This is an attempt to foster an attitude of self-reliance in the child. Every child is impressed with the fact that, as soon as he leaves school, his health is his own problem. Therefore, it is up to him to recognize his own health needs and to attend to them in the best possible way.

No longer do children stand in queues to be "given shots for something." No longer are they lined up with their mouths open so that the doctor can look down their throats. They must know why the doctor looks at their throats, why he "sticks a needle into them" and just exactly what they can do about the condition found. They must know when to ask the doctor to look at their tonsils and teeth and when their eyes are not just as they should be.

The difference between the problems of the one room and of the centralized school lies chiefly in the kinds of contacts made. In the rural school, each child knows the nurse,

though she is seldom seen. Her visit is an event. In the city school, the nurse is likely to be one of the "institutions," unless care is taken. The teacher in the rural school depends on the nurse a great deal for actual health classes. The teacher in the consolidated school uses the nurse as a possible avenue through which problems of health and behavior may be cleared. Health teaching is not a separate problem but is integrated with the whole program. The families are not as familiar with the nurse as a personality and the teacher is not as aware of them as a unit in the child's reactions.

The consolidated school has a great deal of fine equipment. With only one unit to provide for instead of the 18 or 20, equipment costs can be reduced. The board of education is more in sympathy with the better-trained superintendent and the school can be reached more easily.

At the Rural Agricultural School, Beaverton, Mich., for example, news letters are sent out by the school in which the nurse can tell families of clinics and meetings. There is the

fine home economics room in which she can give demonstrations on infant care or first aid.

A great problem in the consolidated school is for teachers to get to know the families. When the teaching load is lessened, the teacher will have more time for home calls. The nurse can help in reporting home conditions to the teacher.

A second problem, that of contagion and sickness, is a matter of general education. The families must learn to keep Mary and Johnny at home when they have a cold or a sore throat. Otherwise the children must be in school all day. With little children at school from early in the morning until late at night comes the problem of proper rest. This is cared for by the regular nap periods. Hot lunches are served to take care of another need. Proper exercise is another problem.

Consolidation of schools is here to stay. Therefore, it is up to the health department, using the county nurse as an instrument, to aid school system and families in seeing and meeting all of these new problems so that the advantages of the one room rural school will be preserved and its disadvantages overcome.

The preschool clinic is used by the health officer of the Gladwin, Clare and Arenac Tri-County Health Unit to advise parents about child health.



Health Facilities on a Small Budget

HARRY MASON JONES

Supervising Principal
Wyckoff County, New Jersey

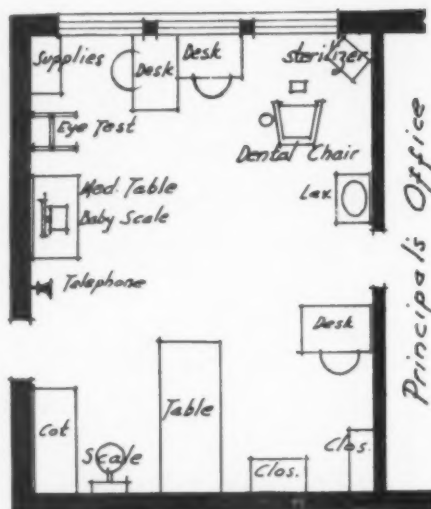
AFTER some preliminary discussion by interested groups and individuals, the board of education and the board of health of Wyckoff Township, Bergen County, New Jersey, decided to take on a child hygiene nurse for school and community service for the year 1926. This service was donated for one year by the bureau of maternal and child health.

The work proved valuable to the community and has been continued to date. The expense has been equally shared by the board of education and the board of health. Since January 1 of this year our nurse is being employed four days a week and we expect to have her full-time services soon. The work itself has proved of particular value because it has been possible to correlate and combine all health activities of the prenatal, preschool and school groups. A fine health record in both the school and the community has been the result.

Our first clinic was located at the end of a back corridor in a poorly lighted vestibule. The outside entrance was permanently closed and close quarters resulted. However, routine work was carried on, including dental service. The auditorium platform was near at hand and on it was operated with good results a Baby-Keep-Well Station.

Our work was carried on in this fashion for five years. During this period a dental chair and dental equipment of rather doubtful origin and age were installed and a competent dentist was employed for examining and cleaning the teeth of all the children; he also did fillings and extractions for indigent children.

In 1931, the new Coolidge School was erected, which resulted in the release of much needed floor space at the George Washington School. We immediately moved the clinic into the board of education room there, space which previously had



served as a classroom. The board room is adequate in size, is light and has been kept in good condition. There is linoleum on the floor, the

walls are well painted, and attractive curtains have been supplied by the P.T.A. It serves well both the board and the clinic.

We are now looking forward to permanent quarters which we expect will be provided in an improved and enlarged building now being discussed. In the meantime, business in the clinic goes on as usual and, for a period of at least fifteen years, a fine program has been carried on in very modest surroundings.

Wyckoff Township, with a population of 4000, is of a semirural nature. Any school or community, lacking health facilities, can do as much as we have done with a very small budget and certainly far from ideal conditions for a considerable part of the time. We know that this work goes into the homes of all the children in a community and that concrete results can be obtained.

Service Unit in New Rochelle

ELMON L. VERNIER

Director of Health and Physical Education
Department of Education, New Rochelle, N. Y.

THE health service unit at the Jefferson Elementary School, New Rochelle, N. Y., consists of a waiting room, a rest room, the nurse-teacher's office, a toilet room and a dressing room. This unit is conveniently located on the first floor of the building adjacent to the main school office and is easily accessible to pupils, teachers and parents.

In the opposite direction from the main office and adjacent to the nurse-teacher's office is the household arts unit; across the corridor is the industrial arts shop. The proximity of the health service department to these units is important because a great number of first-aid cases originate there.

One of the doors of the waiting room opens into the rest room. This is a small room containing one cot

used by the school physicians as an examining room. This room has a door opening directly into the main school office as well as one connecting with the nurse-teacher's office. Adjacent to the rest room is a toilet room and lavatory.

The nurse-teacher's office is the main room of the unit. Connected with this room is a small dressing room. A door opens directly from the office into the main corridor.

Furniture and equipment in the nurse-teacher's office include: two desks, two telephones, four chairs, cot, two file cabinets, clinic stool, lavatory, medicine cabinet, scale, electric Snellen eye chart and a sanitary cup dispenser.

One telephone is connected with the intra-building system while the other is connected with the outside.

Sanitation First

NORMAN J. RADDER

Plumbing and Heating Industries Bureau

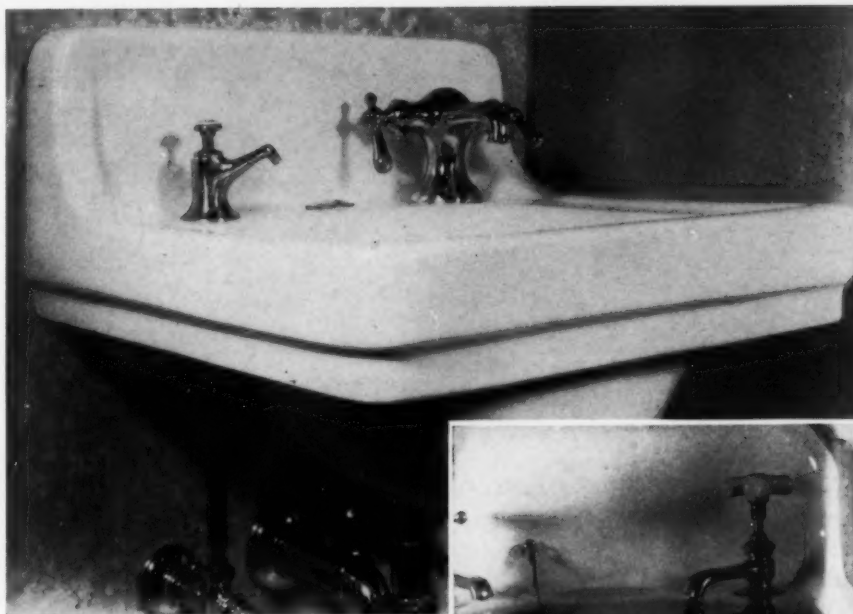
WHETHER from modesty or neglect, the tremendous importance of plumbing in the schools too often is overlooked. The best installation of plumbing possible means safe, modern fixtures and adequate piping installed by skilled plumbers under the most capable direction and supervision available.

One of the problems in school washrooms is the maintenance of superficial cleanliness. Washrooms become littered. Youngsters by throwing foreign matter in water closets cause stoppage, which must be corrected promptly. All these things mean that fixtures, floors and walls of washrooms must be so constructed and designed that caretakers can keep them in order at all times with the minimum of effort. This desirable superficial cleanliness can be maintained only by constant vigilance, fortified by routine cleanings of washrooms and fixtures.

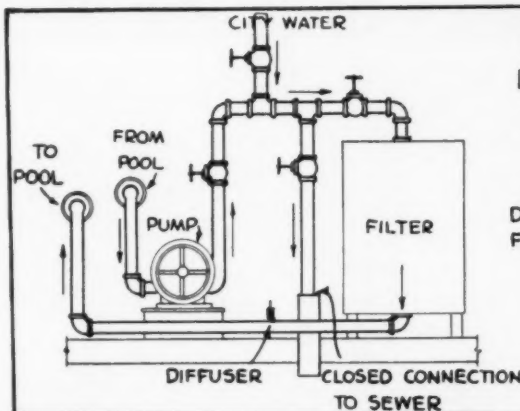
Having achieved a standard of cleanliness on the surface, what about the supplies of pure water delivered in pipes to the school and its children? Supply pipes, being out of sight, too often are out of mind. The community gets its water from fine wells or other protected water supply. The state health authorities put their approval on the water with a regularity that is accepted generally.

But there always is the danger that a community will be lulled into an unvigilant attitude only to be awakened with a start some day when large groups of school children suddenly develop intestinal disorders. Perhaps it is only a slight attack and the community promptly forgets the matter as too trivial to merit attention. Then there is a recurrence of the difficulty. This time it is more serious. Fatalities result. Parents are alarmed. The health authorities become inquisitive. They look for some common source of infection.

The city water supply is tested and is found absolutely pure. The water supply is tested again where it enters

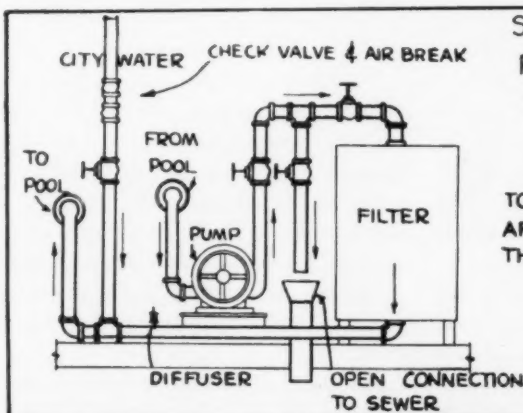


The faucet in the picture above, in contrast to the faucet at right, is protected against contaminated water being sucked back into the water line by the height of spout.



UNDESIRABLE PIPING INSTALLATION FOR A SWIMMING POOL.

CITY WATER CONNECTED DIRECTLY TO WATER COMING FROM POOL.



SAFER INSTALLATION FOR PIPING FOR A SWIMMING POOL.

CITY WATER CONNECTED TO WATER FROM POOL AFTER IT HAS PASSED THROUGH THE FILTER.

HEALTH IN THE SCHOOL



WRONG: The fountain shown at the left is unsatisfactory because the water discharge outlet can be flooded, there is no protective guard above the water opening and the rim wash is carried over the outlet each time the fountain is used.

RIGHT: In contrast to the defective fixture illustrated above, this fountain incorporates good sanitary features. The overflow at back prevents the water inlet from being submerged if the bowl is clogged. The shield protects the inlet from mouth drippings.



the school building. Here, too, it is pure.

Community authorities begin to question whether they are on the right track. Some food may have caused the difficulty. But some responsible person taking part in the investigation has heard about backsiphonage. An experienced master plumber is asked to check over every part of the plumbing system for possible sources of infection. The plumber notes sizes of supply pipes, whether flush valves are equipped with vacuum breakers, the height of faucet spouts above the overflow rim of fixtures and the various uses to which sinks are put in laboratories and elsewhere. He overlooks nothing.

Direct connections between potable water supplies and unsafe water supplies may, in general, be avoided by maintaining an unenclosed air gap of sufficient size between the point of discharge from the potable supply pipe and the highest level to which

sewage or nonpotable water can possibly rise.

In other words, spout openings should be well above the overflow level of fixtures. How high should they be? Research work at the University of Iowa, the University of Wisconsin and the National Bureau of Standards has established that minimum air gaps between the faucets and nonpotable water should be 1 inch for lavatories, 1½ inches for kitchen sinks and laundry tubs and 2 inches for bathtubs.

Where it is impossible to have an air gap between a supply opening and waste water the use of a vacuum breaker in the system is regarded as mandatory. The vacuum breaker is a device that admits air automatically to the lines whenever a vacuum develops, preventing the suction of polluted water into the potable water lines.

Additional measures for preventing leakage of unsafe water into a

supply used for drinking purposes are the prevention or submerging of any part of a potable water supply pipe in a sewer or container holding nonpotable water and, conversely, prevention of pipes carrying impure water or sewage from passing through or over containers of safe water.

The piping to and from swimming pools should be laid out so that the chances of water from the pool getting back into the city water supply lines are reduced to a minimum.

In the case of a faucet on a lavatory, protection is afforded by an air gap. The procedure in the case of a swimming pool is the same. The air gap may be at the pool. In other words, the opening of the inlet pipe should be well above the overflow level of the tank.

If for any reason it is undesirable to have a high inlet, then there should be a broken connection somewhere in the pipe line leading to the pool and from the city water supply. This is usually accomplished by means of a surge tank. From the tank it is pumped into the pool.

Most of the vacuums that occur in water pipes are caused by improper pipe sizing and the use of fittings and valves that introduce excessive friction loss, according to a recent study. At least 90 per cent of all vacuum formations and, therefore, 90 per cent of the hazards of backsiphonage could be prevented if water piping systems were sized and installed correctly.

Why are piping systems sometimes not sized correctly? Invariably it is due to the economy urge, the fact that pipe of a smaller diameter costs less than pipe of larger diameter.

How can school authorities tell whether their plumbing system is playing its natural and proper part as a true and constant promoter of health and a real preventive of disease? There is only one way. Have the entire system periodically examined from beginning to end by a competent, licensed master plumber. Have the entire routine of plumbing maintenance thoroughly studied. That done, follow the recommendations to the letter.

Hazards in Foods

J. H. SHRADER

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PARADOXICAL as it may seem, there are more health hazards in the preparation and handling of foods in the home and in public dining services than in their production and processing in commercial plants. This is a reversal of the situation that existed before the modern application of the latest findings in sanitation and technology to the food industry.

One of the immediate problems in food control is prevention of contamination of food that has been properly prepared but is improperly served. Much of the care and direct expense that may be incurred in the preparation and processing of a high quality food may be wasted by the carelessness practiced in dispensing or retailing it. Recently, the first reported fatality from a food-borne disease in more than twenty years occurred in a large city where a cafeteria employe, suffering with septic sore throat, infected milk by pouring it from a can into a pitcher and thence into glasses, thereby nullifying the great care that had been exercised in the pasteurization of the milk at the dairy. A typhoid epidemic among college students, affecting 41 persons, was traced to a waiter, with a walking case of typhoid fever, who was engaged in wiping and stacking dishes after they had been washed.

The most potent agent of infection of food is man himself. The germs of many communicable diseases may be present in the human nose, mouth, throat and genito-urinary and gastrointestinal tracts. They leave the body in the respective excretions. Sometimes the person carrying these organisms may be coming down with illness. However, numerous instances are known where the carrier is not ill but harbors the germs and spreads them wherever he goes. In either event, the contamination of food by the discharges of such a person is

An article on food values by Martha Koehne supplements this treatment of food contamination. Turn to the School Cafeteria department on page 72

equally potent to induce illness in the consumer of the infected food.

The hands are probably the commonest means of introducing germs into foods. They carry probably the most extensive and varied bacterial flora of any part of the body. Well-meaning efforts to cover up a cough by holding the hand in front of the mouth and failure to cleanse the hands after use of the toilet contaminate them with the most potent types of germs. These are then spread over dishes, towels, cutlery, doorknobs and everything else that is touched.

Contamination of food on display may also be contributed by the public. Customers may be ill or carriers of disease germs, just like the employes. When they congregate at the serving counter and handle the food, cough over it, clear their throats, talk and laugh, their saliva and unclean hands are potentially potent sources of infection. They may contaminate food by reaching across it and brushing it with their sleeves. They may handle drinking glasses around their rims. They may finger the cutlery and spread infection over the tines of forks or the bowls of spoons, the parts that other persons will put into their mouths.

Other agents that may be involved are vermin. Sanitarians know that rats are a greater menace to the health of mankind (as well as a greater destroyer of property) than is any other animal in the world.

Various types of roaches, ants, flies and other insects are prone to frequent food handling establishments. All of these vermin are potentially dangerous because they may carry infectious material.

Atmospheric dirt, such as dust, soot and cinder, is not a direct menace to health but its presence points to lack of proper care in handling equipment.

The first and most important protection afforded the consumer is the proper pasteurization of milk or the certification of the more expensive grade. The great nutritive value of milk renders it an excellent culture medium for bacteria. If milk becomes infected, the organisms proliferate to form massive doses of infection. Pasteurization destroys any disease germs that may have been present in the original milk and renders the milk safe in this respect, provided that it does not become contaminated afterward. Service from the original container, preferably the bottle, as delivered by the dairyman affords the greatest protection.

Ice cream, butter and cheese should likewise come from pasteurized products. All foods should be protected from miscellaneous handling by the deliverymen, the counter men and the public. Protection should be afforded against contamination from their sneezing and coughing.

Pastries should be kept refrigerated when not on display for actual servings. Uncooked greens lose a large part of their vitamin value when allowed to become stale, wilted and unrefrigerated. Soups, stews, meat pies, stuffed fowl, gravies and similar cooked products should never be held lukewarm, because under such conditions they are excellent culture media for the multiplication of micro-organisms. Even potato salads have been involved when the cooked potatoes were slowly cooled and held.

Adequate facilities should be provided for the effective cleansing of

HEALTH IN THE SCHOOL

all drinking glasses, crockery and cutlery. Often the lowest paid help is engaged to do this kind of work; therefore, performance must be critically supervised. Inadequate scraping, overloading, the use of lukewarm water, absence of enough detergent, inadequate functioning of wash and rinse sprays, uncleanness of the machine and wiping with unclean cloths are practices to be prevented. Cracked dishes and cups and chipped glasses should be discarded because of the impossibility of effectively cleaning them.

Dishwashing machines are effective only when they are intelligently used. Unless they are equipped with automatic temperature control, the workers may reduce the temperature for their own comfort and convenience. Likewise, the proper strength of the detergent to be used with the particular type of machine, the duration of the exposure and the rinse with clean water are essential. These specifications come with every machine and differ in numerous localities of the country.

Cleaning Equipment

All equipment that comes in contact with foods should be constructed in accordance with modern principles of sanitation. Wooden surfaces are difficult to clean. Glass and enamel often crack and occlude food material which cannot be removed. Pipes, cookers, washers, steam tables and all fountain accessories should be taken apart daily, thoroughly cleansed with a detergent and hot water, then rinsed and given a final chlorine rinse. Good indications of the effectiveness of the cleaning operations are the absence of visible dirt or food residues, freedom from a greasy feel and the absence of odors. Clean metal surfaces have no odor.

The wiping cloths used by the workers should be clean and, when not in use, kept out of sight but readily available. Clean towels or napkins should be provided for the use of the employees but these should not be carried under the shoulder pit. Employees should not have to wipe their hands on their aprons or

other wearing apparel. All should wear caps or hair nets.

An important item is the provision of adequate toilet and washing facilities for the employees. If the hands are to be washed thoroughly during each absence from food handling, then hot water, soap, nail brush and ample time are necessary. They should be dried on individual towels. The finger nails should be neatly trimmed and free from dirt at all times. Signs should be posted to remind the employees to wash their hands when contaminated.

Daily Health Checkup

The health and physical condition of each employee should be carefully supervised. Open sores, skin diseases, excessive dandruff and nasal discharges may constitute health hazards and certainly should be corrected. A daily checkup of the health of the employees by the foreman or superintendent will usually reveal a malaise (or more serious illness) pointing to the need for medical attention. Such an employee should not be penalized by a loss of wages during medical consultation or absence resulting from illness; otherwise he may seek to hide symptoms that should be revealed. Routine health examinations, with certificate from physician, are not considered to be worth the expense or the trouble.

The medical examination should show whether the person has ever had typhoid fever. If he has had it, he should not be employed where he will come into direct contact with foods. Routine immunization against typhoid fever would probably be worth while.

By application of the tuberculin test and x-raying the positives, open tuberculosis could be eliminated. With the Schick test, susceptibility to diphtheria could be determined, with immunization if positive. The Dick test would determine susceptibility to scarlet fever with a rash but could not eliminate those cases that many consider to be scarlet fever without a rash.

All foods should be handled with serving forks, tongs, spoons and other

implements, whenever possible, especially cake, candy, bread and lump sugar. Persons preparing salads, sandwiches and foods to be eaten unheated should take as much care as possible to avoid touching the ingredients with their hands. Clean napkins should be available for wiping the hands.

The employees should be informed in the principles of personal hygiene. This should be followed up by regular instruction to keep the personnel sensitive to the importance of sanitation as a health measure and as a good will builder.

Rats do not stay where they are not fed. Their runways are indicated by foot marks and droppings. If all food in storage is kept covered and if all scraps are carefully collected at the end of the day, rats will leave the premises. Use of red squill powder is poisonous to rats but harmless to other animals and to human beings.

Colored Poison Bait

More positive methods must be used for removing bugs. Poisoned bait will eliminate them but food must be kept inaccessible to them. No poisoned bait should be used unless it is colored with a dye (like methylene blue, for example) which would reveal its presence if accidentally used. Such baits should be placed on small boards near the runways of the insects so that they may be placed in position at the end of a day and removed before the next day's operations. Flies must be removed by continuous and systematic efforts. All outdoor openings must be screened and sticky fly paper, preferably hanging in strips, should be kept in continuous use and removed before it becomes odious.

Employees cannot be held responsible for cleanliness, sanitation and quality of food products unless they are given proper materials to work with, adequate light to see what they are doing, intelligent instruction in the sanitary objectives and a sympathetic understanding by the management concerning the problems involved in the local operations.

The Teacher Speaks Up

REED FULTON

Principal, West Seattle High School
Seattle, Wash.

THE state supervisor of high schools walked into the principal's office one morning remarking, "I want to see your teachers at work. There are 60 of them; if we spend four minutes in each room, it will take four hours. You don't need to tell me how little I can see in that length of time. I know, but I'll get an impression of this building—a cross section—which will mean something to me as I compare it with the other high schools of this state. Let's go!"

As the two started out, said the principal: "You are a trained observer, Mr. Adams. In two minutes you can get the 'impression' you are after. Let me have sixty seconds before we walk into a room to tell you some of the things you won't see and then I wish you would spend a minute, after we walk out, in giving me your impression. Will you?"

"Agreed!" replied Mr. Adams. Here is a sample of what followed:

As they approached a room, said Mr. Holmes, the principal: "Miss Olney is a teacher of mathematics; she is alert to building responsibilities and has recently obtained a master's degree."

A moment later they were inside the room. Board space was filled with working pupils. Two pupils were leaning over other pupils at desks. Miss Olney turned from where she stood beside one of the board workers. "Jim has worked out every step by himself!" she was saying and her voice was filled with engaging enthusiasm. "Oh, good morning, Mr. Holmes," she continued, with a smile. "Won't you gentlemen have seats?"

"No, Miss Olney," replied the principal, "but I wish you'd tell Mr. Adams, the state supervisor, why you enjoy teaching algebra."

"Easy enough," said the teacher, as she advanced and shook hands. "There's something clean-cut and definite about math that brings out

How Do Your Teachers Answer These Questions?

1. While rapid surveys should not serve in place of adequate supervision and extensive evaluation, can such surveys be avoided?
2. Does one not get something from a "bird's-eye view" that cannot be obtained by microscopic examination?
3. Should we be able to give an intelligent answer to the question: "How do you want your contribution to this school estimated"?
4. In what way can we learn to evaluate our own efforts?
5. Are we able to improve our personality, enthusiasm, poise, sympathy?
6. Is enthusiastic teaching a basic essential for learning?
7. On whom rests the responsibility for our in-service training?
8. Should such training be left to each of us?
9. Is a little visitation better than none?
10. Does an expert supervisor make allowances for the briefness of his visit?
11. Where is the happy mean between oversupervision and undersupervision?
12. From any angle is it wise for us to believe that we are superior to observation and suggestion?
13. What are the school responsibilities of the teacher outside the classroom?
14. Are our pupils best qualified to estimate us?
15. Is an untidy desk a virtue? Should it go unmentioned? Should we confine our efforts to the great principles of education and excuse our negligence of small matters?
16. Are we inclined to hide behind vague assertions that our progression deals with the intangibles?
17. Do the qualities that make up a really fine classroom teacher automatically guarantee more than a "classroom teacher"?
18. Is the "reasonable and potent consideration of the pupil's personal problems" a vital part of teaching?
19. What is the purpose of an estimating survey?

the same qualities in young people. I enjoy that growth."

A moment later the supervisor, with an apology, made for the door. In the corridor he turned to the principal: "Three things were almost instantly apparent in that room: meaningful activity, enthusiasm, well-balanced atmosphere. Miss Olney is a good teacher."

"Well," said Mr. Holmes, "in this next room is Miss Hanread, teaching English. This class is made up of slow learning pupils, chiefly boys." He opened the door and they entered. On each window ledge was a plant. Miss Hanread, gray-haired and placid, sat at her desk. In a chair

beside her was a boy, notebook open. Apparently they had been in conversation when the door opened. Pupils were reading or writing. Two, in a corner, were talking quietly.

"Oh!" exclaimed Miss Hanread and she struggled to her feet. "John, excuse me for a minute." She met the visitors with beaming countenance. "Yes, I've met Mr. Adams, even though he doesn't remember me. These dear children are preparing a report on some reading they have done. I don't believe any two of them have been reading the same thing so I work with them one at a time. My, what a difference there is in what we like to read! I want you

to see this model airplane that one of the boys made and he described it well in a composition."

"Your plants look nice, too," said Mr. Adams.

"Oh, yes, the children and I like to watch them grow. We learn a great deal about soil and seeds and flowers as we go along." Then in an aside: "Did you notice the boy in the corner? He just entered yesterday. His folks moved from the Midwest. I suppose Mr. Holmes has told you we have 44 families in our district from out of the state. They make a problem but the children in here enjoy helping anyone like that."

She followed the two to the door, still talking. When the door was closed, Mr. Adams spoke: "She's a good type for such pupils; she believes in the individual, in integration and sees beyond her room. She's a good teacher, but I'm afraid she likes to impress people and I'm sure that even the brightest child would be loggy in so warm a room. The window should have been open."

The principal nodded and turned to the next door. "Mr. Robb has history; he has been in this building a dozen years."

Embarrassing Moment

A burst of laughter came through the panel. Mr. Holmes turned the knob and they entered. A boy was standing beside his desk in the middle of the room. His face was flushed but it wore a dogged grin as he glanced around at the laughing pupils.

"He don't know black from white!" exclaimed a boy, whose back was toward the door.

"He's a communist!" cried another and a fresh gale of laughter swept the room.

Mr. Robb, tall and rawboned, rose in some confusion from his desk. The pupils saw the visitors and snickered heavily, then fell into furious whispering.

"Did—er—did you want something, Mr. Holmes," inquired the teacher, hesitantly, "or were you just—er—visiting?"

"You remember Mr. Adams, don't you?" asked the principal, advancing toward the desk.

"Well, er, yes, I guess I do," declared Mr. Robb, finally deciding to

offer to shake hands with the supervisor. The noise among the pupils was mounting.

"Just having a lively discussion?" said Mr. Adams.

"Well, er, yes, we—we—" The teacher half turned and rapped on the desk with his pencil. "Let's have less—er—confusion!" he admonished. "Some of you—er—might even try studying for a minute."

With a snicker, a lull settled over the room and Mr. Robb faced his visitors. "Er—we have been discussing some of the current legislation up before Congress and—er—well, that's where we were when you came in."

Too Late for Adjustment

There was another moment of awkwardness before the visitors left.

"The pupils like Mr. Robb," the principal began, "but—"

"I'd gamble," said the supervisor, "that he hasn't failed a dozen pupils in the twelve years he's been here. Of course, one wouldn't judge by this isolated visit, but isn't it true that he is afraid of his pupils? Doesn't he interpret freedom as meaning the removal of all restraints? Don't the roughnecks and the nonperformers crowd into his classes? He hasn't been in a summer school and he hasn't visited another classroom since he came to you, has he?"

The principal had to nod again as they walked on.

"Ten years ago this school system should have made clear to that teacher the need for adjustment," went on Mr. Adams; "he should have been given encouragement and opportunity to come up to certain standards. If he couldn't or wouldn't, then he should have left the profession. If education is as valuable as we claim it is, then more intelligent means of admitting and retaining teachers should be devised."

"He couldn't get another job—"

"I know! I know! But when such reasoning is to rule, there should be a pension system of some sort to prevent starvation yet take that sort of person from the schoolroom."

When the last of the 60 schoolrooms had been visited, Mr. Adams summed things up: "You know this already, Mr. Holmes, but here are the major questions that come to my

mind when I enter a schoolroom. You might like to pass them on to your teachers:

1. Is the room just as bare as when the builders left it, or are there indications of the teacher's personality and interest in her job? Are there pictures, plants, magazines, books, a bulletin board and reference materials on the teacher's desk?

2. Do the temperature and lighting of the room show a thoughtful attitude?

3. Is the teacher's personality attractive and well poised? Does she have enthusiasm and a constructive sympathy?

4. What percentage of the pupils display an active interest combined with cooperative self-control?"

Up to the present point, an element of fiction has been employed in order to control the effect. From here on, the quotations are literal.

That afternoon the principal had the following statement placed in each teacher's office box:

TEACHERS:

Occasionally our school is judged by a rapid survey. The one just finished made me feel anew that I would appreciate knowing what you believe should go into an estimation of your contribution to this school. Can you find time to give me a signed answer within a week? Your answer is strictly voluntary, but I do believe that an occasional "self-survey" is necessary to progress. If the motive for this request is alarming, drop in to my office and perhaps between us we can arrive at a point of understanding.

From the replies that came in, the following excerpts display the wide variety of teacher attitudes toward rating.

FIRST TEACHER: The visitor, on entering my shop, should immediately sense: (1) a tone of industriousness, with each boy busy at some worthwhile task; (2) proper application of tools and machines, the fundamentals of a high degree of skill, and (3) orderliness of pupils and materials. These earmarks are certainly not in evidence during the first two weeks or during the final days, but are the foremost objectives I have in mind when we are settled down to work.

SECOND TEACHER: Keeping in mind the impression that might be gained by a visitor in a brief time, I should prefer to be rated on the amount of enthusiasm displayed by myself and the class. I say this because it appears to me that the basic essential for learning is a spontaneous or a consciously directed interest, that enthusiasm on the teacher's part is requisite to selling the subject and that, with a mental setup of this kind, learning is possible.

THIRD TEACHER: If our selection as teachers in this system is not evidence that we are capable of doing our work unsupervised (and I certainly don't think it is), then there should be enough supervision to enable the supervisor to know what we are doing. A three minute visit, or even an hour's visit, once a year is so futile, so worse than futile, that I should like to see it discontinued. Every teacher has good days and bad. Supervision must come often enough to determine the mean.

FOURTH TEACHER: My services might be evaluated upon my knowing the subject, instilling confidence in pupils, being fair and just, keeping good discipline, being human and interested in pupils and cooperating with faculty and administration.

"A Short Visit Is Unfair"

FIFTH TEACHER: I always feel that a short visit is unfair; it may overrate a teacher's ability or it may under-rate it. Certain combinations of "hard" cases may show up as a bad situation one period while, if the visitor came any other period, a good impression might be obtained.

SIXTH TEACHER: Contributions not apparent to a visitor: (1) progress of some pupils who find school difficult; (2) my work on activities, and (3) habits and skills that will be useful to the pupil in later life.

SEVENTH TEACHER: Points that are apparent to a visitor immediately but that are difficult to control by the teacher who has to change rooms several times during the day are: (1) materials on blackboards and bulletin boards; (2) arrangement of teacher's desk, and (3) temperature regulation.

EIGHTH TEACHER: I am not an inexperienced cadet. I was selected for

my position from a large number of trained, experienced applicants. I am just as intelligent, just as well educated as those in administrative positions. I have had just as much experience in classroom teaching. I am just as sincerely interested in the education of the pupils and the welfare of the schools; therefore, it seems to me that unless a supervisor can give more time to acquainting himself with my work, he may, in the absence of any evidence to the contrary, safely take my contribution for granted.

NINTH TEACHER: I should like to be judged on the underlying spirit, on the permanent contribution I am making to pupils and by the values I am interpreting for them.

What a Survey Should Include

TENTH TEACHER: A brief survey of my room should include: (1) physical conditions, including heat, light, ventilation, condition of floors, blackboards, bulletin boards and work tables; (2) pupil attitude, such as order and attention, and (3) the teacher's appearance and his control of the situation.

ELEVENTH TEACHER: I should like my contributions to be an atmosphere of voluntary industry, a spirit of cheerful cooperation in the activities and work of the school not only on my part but on the part of the pupils with whom I work; school loyalty and pride; achievement of improvement by appreciation rather than criticism, and efficient handling of the "red tape" of the school.

TWELFTH TEACHER: I am to be rated. Well, I suggest that those who rate me should be those who know most about me: (1) my pupils; (2) my fellow teachers; (3) my department head; (4) the office, including principal, vice principal and clerks; (5) my school patrons, and *never* a supervisor on a three minute visit. Do not rate me on my untidy desk, or the hours spent correcting papers, or the color of my new suspenders or my conversation at lunch, but perhaps on something that cannot be measured but only sensed: Have I kindled the fires of purposeful learning?

THIRTEENTH TEACHER: It seems to me that actual classroom teaching is the smallest part of a teacher's job,

certainly the least significant. I find the reasonable and patient consideration of the pupil's personal problems much more demanding than class work. Such services would escape the casual observation of a visitor.

FOURTEENTH TEACHER: I try to have my pupils enjoy history, to be interested in following present day trends, to appreciate the problems of today, always keeping in mind the rights we have acquired because some people in the past were willing to suffer that we might have these rights. I try not to be a crab but I do believe that a certain degree of study is necessary. An easy teacher is not admired.

FIFTEENTH TEACHER: Does the person who rates me see the problems I face—more pupils than seats, some too close to the windows to permit ventilation, some too close to hot radiators, inadequate janitor service, an extra activity that demands much time before and after school?

SIXTEENTH TEACHER: As librarian I strive for a consistently, orderly quiet room where pupils may study and enjoy not only school reference work but recreational browsing, free from the necessary restriction and consciousness of the classroom. I hope to build an atmosphere that will always linger in association with libraries.

Guidance Through Tours

(Continued from page 24)

the pupils to center their attention on something definite. No opportunity should be lost to evaluate the trip after it has been made. Class discussions, written and oral reports and notebooks will help to bring about a closer relationship among the various school subjects and will enrich the entire curriculum.

Real comradeship between teacher and pupil is absolutely fundamental for any effective guidance program. Since such tours enable a teacher to discover traits and interests of his pupils that are not brought out in the typical class they should be included in the regular offerings of the school. These tours should not be considered extracurricular but should be a vital part of every school curriculum.

Teachers' Salaries

E. L. WHITNEY

Faculty Members.

ONE of the by-products of the recent national check of the economic status of college alumni¹ is a study of the actual purchasing power of the salaries of public school teachers. The situation centering in the state of Colorado is used by way of illustration.

Before the purchasing power of the teacher's salary may be determined, it is necessary to know how he spends his money. Since salaries are used to buy goods, the amount of goods usually purchased may be used as the criterion for determining purchasing power.

The budget may be divided roughly into two main groups: necessities and luxuries. These may be called need and growth expenditures. For example, food, clothing and shelter are needed to support physical life,

¹Greenleaf, W. J.: Economic Status of College Alumni, Project in Research in Universities, Bulletin No. 10, 1937. Washington, D. C.: U. S. Office of Education, 1939.

but education and recreation tend toward mental growth and esthetic development. Budget emphasis will, obviously, be different on different economic levels. For example, a teacher will probably use a larger proportion of his income on "growth" than will a day laborer.

The Colorado Research Committee on the Economic Status of the Teacher made a detailed study of the spending of public school teachers in Colorado in 1932-33. The budget was divided into the same categories that the National Education Association Committee on the Economic Status of the Teacher used. This was a continuous project, starting in October 1932 and ending in September 1933. The teachers participating

were given books of twelve questionnaires, each of these containing a copy of the budget. Every month the teacher filled in the sum of money spent under each item on the return sheet for that month and mailed it to the committee.²

Since the returns of the men and the women were kept separately, budget proportions for single and for married people are available. The majority of the men teachers were married and the women were usually single. The first months of the study provided the larger returns. During October, 93 men and 460 women sent in data. Each month the returns declined. The amount of money reported totaled nearly a half million dollars, \$83,659 for the men and \$391,662 for the women.

When the proportions of the budget are known, variations in purchasing power can be determined more accurately. The cost of living will vary in proportion to the variations in each item of expenditure. Since the variations in cost among the items are not the same, it is necessary to weight the variation in the total purchasing power by the variations in each item. The Colorado Research Committee obtained the weightings of the budget of the teacher when it received the percentage spent upon each of its 15 items. Therefore, if the exact changes in the purchasing power of teachers' salaries were to be determined, the 15 items would have to be weighted.

The same assumption that the National Education Association committee used was first followed in constructing the formula for the cost-of-living indices; *i.e.* it was assumed that the changes in unusual expenditures for health, education, recreation and miscellaneous needs and luxuries would vary as the need items varied. Hence, they were combined with the need expenditures. It was

Table 1—Construction of Weights for Determining Purchasing Power of Salaries of Colorado Teachers, 1932-1933*

Item	Men	Women
1	2	3
1. Food.....	\$ 23.91	\$ 23.59
2. House operation.....	13.07	8.12
3. Transportation.....	11.20	11.66
4. Clothing.....	10.21	15.72
5. Housing.....	9.83	11.39
6. Taxes.....	3.81	2.92
7. Interest.....	3.33	1.28
8. Miscellaneous.....	24.64	25.32
Total.....	\$100.00	\$100.00

*Whitney, F. L., and Others: Unpublished Report of the Research Committee of the Colorado Education Association on the Income and Expenditures of Public School Teachers, 1932-33.

Table 2—Purchasing Power of Teacher's Salary in Colorado, 1926-36

A—Weights of the Bureau of Labor Statistics; B—Weights of Eell's Index for Teachers; C—Weights of Butsch's Index for Teachers; D—Weights of the National Education Association Committee on the Teacher's Economic Position Index for Teachers; E—Weights of the Colorado Index for Men Teachers; F—Weights of the Colorado Index for Women Teachers.

Year	A ¹	B ¹	C ¹	D ²	E	F
1	2	3	4	5	6	7
1926.....	101.7	99.4	99.4	100.4	101.4	100.5
1927.....	99.7	97.9	96.8	97.7	98.4	98.0
1928.....	96.9	95.7	94.5	95.6	96.6	95.9
1929.....	97.7	97.8	95.7	95.7	97.0	96.6
1930.....	93.8	95.6	92.8	92.4	93.9	93.4
1931.....	85.7	92.0	87.8	85.4	87.3	87.4
1932.....	75.7	85.5	80.2	76.3	80.1	79.3
1933.....	74.8	82.8	77.6	75.1	79.1	78.0
1934.....	78.7	84.4	79.7	78.4	82.2	81.0
1935.....	82.1	86.0	81.6	80.7	84.2	83.1
1936.....	83.3	86.9	82.6	81.7	85.0	84.0

¹Butsch, R. L. C.: Trends in the Purchasing Power of Teachers' Salaries, American School Board Journal 87:18, (Oct.) 1933.

²Buckingham, B. R., and Others: The Teacher's Economic Position, Research Bulletin No. 4, 13:236. Washington, D. C.: National Education Association, 1935.

Note: Average, 1923-25-100 (base).

and Expenses

and E. J. KALNEY

Colorado State College of Education

also assumed that reduction of debt, gifts and donations and aid to dependents would vary as the total varied. Hence, they were combined into the whole budget. Table 1 gives the weighting obtained. The formulas are used in determining changes in the purchasing power of the teacher's dollar.

After the formula for determining the purchasing power of the teacher's salary was constructed, it was necessary to obtain the various indices. As the study had most of its subjects residing in Colorado and there were no state figures, the indices for the city of Denver were used. It is assumed that the indices for all of Colorado will vary more like Denver's than like those of the country at large.

Using the weightings of the various formulas, the purchasing power of the teacher's salary was computed. Table 2 presents the various indices of the cost of living for teachers in Colorado, according to the purchasing power of items in Denver. The recession period is noticeable here. This is not true merely of one formula but of all formulas dealing with the cost of living of teachers. All indicate the year 1933 as the depth of the depression. These data, therefore, justify the use of the year 1933 as the depression year among the bachelor of arts graduates of Colorado State College of Education.

In any discussion of salary, money values for the various years should be corrected by the indices. This is done by dividing the salary by the index of that year. In calculating, the fact that indices are percentages should be remembered in order to place the decimal correctly. For example, if the salary of a teacher was \$1350 in 1936 and \$1150 in 1933, which has the greater purchasing power? The amount of goods purchased for \$100 in 1924 and 1925 is taken as the average. Hence, the \$1350 is divided by the index .850 for 1936, and the \$1150 is divided by .791 (table 2, column 6). The results

will express the total purchasing power of the teacher's salary according to the Colorado formula.

Upon completing the computations, the purchasing power of the salary of 1933 proved to be \$1454 and that of 1936 was \$1588. This is further illustrated in table 3, which includes the depression years. This table gives equivalents for a salary of \$1000 in 1936.

With the index of the cost of living known, it is now possible to compare salaries of teachers in different years. Table 4 illustrates the use of these indices. Here, the actual money figures of salaries of experienced and inexperienced teachers from 1925 to 1936 are calculated, together with

their purchasing power at the dates given. All the salaries are made equal in purchasing power and it is found that experienced teachers among the men are receiving approximately the same salary as those in the 1920's. Women, however, show some increased compensation.

Among the inexperienced, it is found that the men have not suffered decreased salaries, whereas the women have received better starting wages. Thus, in 1926-27, the inexperienced men teachers of Colorado received a real wage of \$1343, while in 1935 they received \$1412 (table 4). The women suffered a wide variation, \$916 in 1926-27 and \$1221 in 1935.

Hence, it may be concluded that the depression has not retarded the economic status of these teachers when the total trend of a decade is taken into consideration.

Table 3—Amount Equivalent to Teacher's Salary of \$1000 in 1936

A—Bureau of Labor Statistics Formula; B—Eell's Index for Teachers; C—Butsch's Index for Teachers; D—National Education Association Committee on the Teacher's Economic Position Index; E—Colorado Index for Men Teachers; F—Colorado Index for Women Teachers, 1928-35.							
Year	A	B	C	D	E	F	Average
1	2	3	4	5	6	7	8
1928.....	\$1163	\$1101	\$1144	\$1170	\$1136	\$1142	\$1143
1929.....	1173	1125	1159	1171	1141	1150	1153
1930.....	1126	1100	1123	1131	1105	1112	1116
1931.....	1029	1059	1063	1045	1027	1040	1044
1932.....	909	984	971	934	942	944	947
1933.....	898	953	939	919	931	929	928
1934.....	945	971	965	960	967	964	962
1935.....	986	990	988	988	991	989	989

Table 4—Actual Compensation and Purchasing Power of Salaries of Experienced and Inexperienced Teachers in Colorado, Ohio and Oregon.

Study	Men		Women	
	Salary	Value	Salary	Value
1	2	3	4	5
Experienced teachers				
Colorado State College of Education, bachelor of arts graduates, 1928-1935	\$1326	\$1560	\$1171	\$1394
Colorado experienced teachers, 1923-1925 ¹	1567	1567	1167	1167
Colorado State College of Education, bachelor of arts graduates, 1935	1200	1412	1273	1221
Inexperienced teachers				
Colorado inexperienced teachers, 1926-1927 ²	1342	1343	907	916
Colorado inexperienced teachers 1925-1926 ³	1560	1538	1129	1123
Ohio State University inexperienced teachers, 1928-1929 ⁴	1426	1470	1264	1308
Oregon inexperienced teachers, 1929-1930 ⁵	1266	1348	965	1033

¹Whitney, F. L.: Teacher Demand and Supply in the Public Schools, Colorado Teachers' College Education Series, No. 8, Greeley, Colo., 1930.

²Messner, C. J.: The Demand for Public School Teachers in Colorado, Unpublished Master of Arts Thesis, Colorado State Teachers College, Greeley, 1928.

³Anderson, E. W., and Stubbs, E. M.: Salaries of Inexperienced Teachers, Educational Research Bulletin 8:289 (September 25) 1929.

⁴Huffaker, C. L.: Teacher Demand and Supply in Oregon, University of Oregon Education Series, Vol. 2, No. 5, University Press, Eugene, Ore., January 1931.

Chalk Dust

Ode to February

From the learned halls of Boston
From the sunny climes of Cal.
The pedagogues assemble
To revamp their jargonelle.

And the hostels gleam more cheery
At the staid and seemly scene,
For the crowd is never beery
Despite *Time Magazine*.

The Learned Ones assemble,
With their papers erudite,
To up the I.Q. of a world
That isn't very bright.

They change the laws of learning,
Damn the latest school survey,
While lesser masters nod and doze
In dignified array.

O, some folks long for heaven
Or places less refined,
And others hie for southern sky
To leave it all behind!

But as for me and Arthur
We shall softly steal away
To meet you in St. Louis
At the A. A. of S. A.

L'ENVOI: If my Board will pay the way.

THE President of these more or less
United States started the thing. In spite
of the howls of calendar makers, he decreed
Thanksgiving into a movable feast, thus
doubling the sale of headache powders and
tummy sedatives.

Now comes the Editor with a new idea.
He suggests in an editorial that Labor Day
be changed from the first Monday in Sep-
tember to the second.

You have something there, Professor! If,
by chance, anyone reads the editorial, the
idea will undoubtedly appeal. Public school
men will rise and cheer. The public school
product needs to be streamlined and the
production time, shortened.

One more week of fishing, seven more
days to avoid reading those books that we
planned to read all summer and that, praise
Allah, we forgot to bring with us; seventy

golden hours to sit in the sun and admire
our navy swimming trunks.

Go to, Professor! As you stick out your
neck, Chalk Dust will back you to the limit.

I HAVE just made a speech, the chokiest
speech of my life. I spoke before a
group of retired school teachers, more than
50 teachers whose combined teaching experi-
ence was upwards of 1750 years.

Believe me, Arthur, it was an humbling
experience.

I started out to deliver one of my speeches
out of the barrel, the usual pedagogical
platitudes, a scattering of statistics that
proved something or other, a little sermon-
ette and a couple of dry-cleaned jokes.

As I spoke, the sun shone through the
window upon gentle, lovely heads of gray
hair. There was an air of expectancy, of
keenness, of life. For the first time in an
oratorical career covering P-T.A.'s, Lions,
Elks, Moose and Red Men, I was abashed.
In the presence of something grander than
I knew, I groped for words.

These gentle folk looked back upon more
happy memories than is the fortune of most
men ever to possess. Bitter-sweet memories
of battles against ignorance and sloth, little
snatches of dreams of youth eternal, bits of
happiness that come from a life of service.

Verily, Arthur, the teaching profession
may pay indifferently in the coin of Caesar
but how generously it rewards in the thing
of God!

Valentines

When better teaching will be taught
When battles must be won,
The accolade will go, unsought,
To J. Cayce Morrison.

Northwestern has its Melby,
A man profound and wise,
But Columbia (and Miller)
Know how to advertise.

Hail budget balancer, Paul R. Mort!
Whose figures always check;
But as for child accounting
Hail thrice, Ohio's Heck!



He Is a Good Citizen

PAUL H. VAN NESS

Principal, School No. 1
Scotch Plains, N. J.

A YOUNG man is reading the evening paper. He is putting to practical use the early training in reading which he received in school. Or he is writing a letter. His training in writing and in English composition is serving practical ends. Yet again, he is figuring out a budget that will keep the family in vegetables and shoes and still leave enough to spend two weeks at the shore. He is putting to practical use his training in arithmetic.

Three pictures have been sketched in the foregoing paragraph, pictures that one could parallel a dozen times a day.

However, show me the picture of a young man in the process of using his early training in the social studies, in geography, history or civics. Of course, it will be unfair to use as the subject of your picture a specialist, a South American importer or a professional politician. While such people use the subject matter of the social studies continually, the nature of their occupations is such that their training and experience in these fields go far beyond anything that we could hope to give in the public schools. They are, therefore, as far out of the field of the present discussion as a specialist in one of the three R's: a librarian, an author or an accountant. We are not interested in those with specialized training. Rather, our purpose is to see how the training given in our public schools serves the typical graduate of the system.

Functional Teaching

It seems that our teachings should have two results: one appreciative, one functional. Let us devote our attention primarily to the latter. The functional results toward which we direct our teaching in reading, in arithmetic, in writing are fairly obvious and well defined. This, however, is not the case with our teaching of the social studies. We say that we want these studies to function in making our pupils better citizens. This is certainly a laud-

able objective. But is it not a bit vague?

Just what does a good citizen look like when he is in the process of being a good citizen? If we are going to organize an effective curriculum in the social studies it is, perhaps, to the answer of this question that we should first turn our attention.

Charting the Course

Under a dictatorship or other absolute form of government, it is easy to define a good citizen. He is the one who does what he is told to do, or perhaps the one who does what he wants until he is told not to. In a democracy, to define the good citizen is far less simple. Obedience to his government is only a part of his task. Helping chart the course of that government, evaluating its ideals, its methods and its attainments, these also are a part of his task. In brief, he is not a hireling; he is a member of the company.

Rather than attempt a definition of the good citizen of a democracy, perhaps it would be more profitable to consider some of the characteristics we would expect him to have. In this way we can hedge him off from his fellows and examine him more minutely. Thus we can gain an idea of how he became what he is and how we can make others like him.

A good citizen is, of course, a man of sound moral character in the conventional understanding of the term. But this sound moral character is merely a prerequisite upon which his citizenship is built. The vitally important factor is that he recognizes himself as a part of a society, of a civic body. He identifies himself with this civic body of which he is a citizen. He has the definite feeling that its successes are his successes; its failures, his failures. He is proud of his country. He glows with satisfaction when he considers its accomplishments. Equally, he is con-

scious of its failures, is eternally vigilant that they be not repeated. His attitude toward his government, its policies and its actions is one of constant constructive criticism.

He knows the functions of the civic body in protecting the lives, liberty and pursuit of happiness of its citizens. He understands its function as a cooperative buying agency. Taxes are not to him a necessary evil. They are his contribution to a group of people who are buying, for their mutual benefit, goods too expensive to be bought individually; roads, schools, fire and police protection and the like. For the question, "How can we cut taxes?" he substitutes the questions, "Can we, as a group, afford to buy this?" and "Are we getting our money's worth?"

He recognizes the problems of the civic body and considers these problems as his problems. America's attitude toward the fascist governments is as much his problem as the paving of his street.

The Materials of Society

He knows the materials with which his society has to work. On a nation-wide basis, he knows the general contour and weather conditions and annual rainfalls, the crops that can be grown, the coal mines, the iron mines, the farmlands and the transportation routes. He may well be a firm believer in private ownership as the means for administering natural resources. He considers the resources of the nation to be the property of the people of the nation, a heritage from the past and a legacy for the future. They must not, therefore, be wantonly desecrated for the benefit of a few or of a generation. He is firm in his stand that intelligent planning and conservation must take the place of the selfish abuse of the past.

As he gets closer to home, his knowledge is far more specific. He

knows from personal observation the industries of his community, what materials they use and where they get them, what they produce and where they sell it. He has seen his town's reservoir and talked with the manager. He knows how his town disposes of its sewage and its garbage. He knows whether those things are done well or poorly.

In other words, he knows a good many of the data necessary for the solution of the problems of the bodies politic to which he belongs. Furthermore, he recognizes the fact that further data may be needed for the solution of specific problems and he knows where to get these data.

He has had years of practice in the solution of problems by the application of reason to data. He is not misled by propaganda or unreasoning prejudice. He is not ruled primarily by self-interest. The only solution he will accept is the solution according to reason. Finally he does something about it all. He writes to his representatives in the state and national capitals. He talks to his local representatives, tells them how he wants them to vote on certain questions and why he wants them to vote that way. He talks with his neighbors and encourages

them to make their voices heard. From time to time he attends meetings of the common council or township committee and makes it a point to be intelligent about what is going on. He visits the new municipal building that is going up in town and makes a point of going out to look at the road that is to be paved.

Not only does he serve on juries when he is called but he drops in at court now and then just to watch the proceedings. He is interested and makes it a point to inquire when sentences are inexplicably suspended or disproportionately severe. He goes to meetings of the board of education. He visits the schools. He takes part in public discussions. He writes to the correspondence columns of newspapers.

He does all these things, not to find fault or to criticize. He does them because he is an active, conscientious member of the civic body. He knows that in a country where the sovereign power lies in the hands of the people of the country, it is only by continuous, thoughtful support from him and his fellow citizens that conscientious civil servants can overcome the undesirable factors in the political system, graft, dishon-

esty and stupidity. He is a good citizen.

Now I do not believe that the sole aim of our work in the social studies is the development of those traits which I have above attributed to the good citizen. The entire appreciative side of history and geography, which is vitally important, I have completely ignored. On the other hand, I feel that any course of study in the social studies, which claims as a general objective the development of good citizens but which is not directly planned to contribute specifically to those characteristics of the good citizen sketched in above, is making an unjustifiable claim.

Activities designed to bring the pupil into intimate personal contact with his environment, to teach him the underlying facts of physical and industrial geography, often by first-hand observation, should form an integral part of the work of every grade.

This is not a plea for any patent formula in the social studies. The same results can be obtained by an integrated course or by separate subjects. But the pupils must get out of the school into the community. Newspapers must come into the schools. Pupils must go to the farms and the stores and the factories and the dumps and the dangerous crossings, not once, but continually. They must talk with the people out of the schools. They must go out after the rainstorm to study floods and deltas. They must see for themselves how gullies destroy the land when the natural cover is torn off and not replaced with an adequate substitute. They must talk about and look at buildings and get an idea of costs. They must study taxes and what they buy and how much these things cost. They must make maps and study elevations and keep rainfall and temperature charts. They must form the habit of writing letters to people in other parts of the country and to various departments of our government.

All these things must not be done at the whim of the child, or the teacher or the principal. They, and multitudinous others of their kind, must form an integral, graded and considerable part of the regular course of study.

As Others Say It

Compiled by JOHN G. ROSSMAN
Superintendent of Schools, Warren, Pa.

The eagle does not catch flies.—LATIN PROVERB.

No civilization is static. It must move forward or die.—HERBERT HOOVER.

All rising to great place is by a winding stair.—BACON.

Sleep, riches, and health, to be truly enjoyed, must be interrupted.—RICHTER.

A workman bent on good work will first sharpen his tools.—CONFUCIUS.

Associate reverently, and as much as you can, with your loftiest thought.—THOREAU.

A politician thinks of the next election; a statesman, of the next generation.—JAMES FREEMAN CLARKE.

A little common sense mixed with ideals and standards makes a good combination.—JAMES E. RUSSELL.

Every teacher is in danger of becoming a czar in his own classroom.—COURTIS.

Never disclose your schemes, lest their failure expose you to ridicule as well as disappointment.—PITTACUS (650 B.C.).

No man can learn to enjoy life until he first learns to enjoy his work.—FORBES.

Either you have work or you have not. When you have to say "Let us do something," then begins mischief.—TAGORE.

The Married Girl Pupil

M. M. CHAMBERS

Specialist in School Law

THE United States census of 1930 reported that 18,317 girls, aged 15 to 19, inclusive, were married and attending school. This was roughly one in every 150 of all school girls of those ages. Only 8681 of these married girl pupils were aged 18 and 19. The remaining 9636 were 15, 16 and 17. Undoubtedly many of those 18 and 19 years old were in colleges but probably most of those under 18 years were in high schools. If we assume that only 9000 altogether were in high schools, then we can conclude that about one in every 600 high school pupils of both sexes was a married girl.

Peculiarly enough, at about the same time the supreme courts of two states had occasion to pass upon the right of a married person of school age to attend the public schools. The arguments that were placed before these courts, the reasoning of the judges and the conclusions reached deserve wider attention than they have yet received. They will long be of interest in many communities.

At Moss Point, Miss., the school trustees established a rule barring married pupils. A suit was brought to compel the admission of a married girl 15 years of age. The state supreme court, in deciding the issue in favor of the girl, called attention to the constitutional requirement that the free public schools shall be open to persons aged 5 to 21 and to the compulsory attendance statute covering those aged 7 to 16, inclusive.

Court Refutes Argument

The whole court concurred in the opinion, speaking thus: "The ordinance is based alone upon the ground that the admission of married children as pupils . . . would be detrimental to the good government and usefulness of the schools. It is argued that marriage emancipates a child from all parental control of its conduct, as well as such control by the school authorities; and that the

marriage relation brings about views of life that should not be known to unmarried children; that a married child in the public schools will make known to its associates in school such views, which will, therefore, be detrimental to the welfare of the school. We fail to appreciate the force of the argument."

The court then concluded with an eloquent and equivocal pronouncement: "Marriage is a domestic relation highly favored by the law. When the relation is entered into with correct motives, the effect on the husband and wife is refining and elevating, rather than demoralizing. Pupils associating in school with a child occupying such a relation, it seems, would be benefited instead of harmed. Furthermore, it is commendable in married persons of school age to desire further to pursue their education and thereby become better fitted for the duties of life. And they are as much subject to the rules of the school as unmarried pupils and punishable to the same extent for a breach of such rules.

Ordinance Is Arbitrary

"We are of opinion that the ordinance in question is arbitrary and unreasonable and, therefore, void."¹ The use of the word "arbitrary" should be kept in mind for comparison with a somewhat similar decision by another state supreme court in the same year.

At Goodland, Kan., a married girl was excluded from the Sherman County Community High School. The case was complicated by innuendoes against her morals and went to the state supreme court on an agreed statement of facts. A brief recital of the facts is necessary and will give us a bit of the atmosphere in which such cases sometimes arise.

The girl was a sophomore during the first semester of 1928-29 and com-

pleted that semester's work successfully but withdrew from school. She was married Feb. 29, 1928 and became the mother of a child, not prematurely born, on Aug. 9, 1928. In September 1928 she again enrolled in the high school under her maiden name, but was told that she could not attend because she was a married woman. She was allowed to return to school for one day at which time the board of education met and decided to exclude her. There were other married women in regular attendance at the school.

Charges That Were Made

Affidavits against her stated that after her marriage she had lived with her husband only a short time and after separation had attended school at the neighboring town of Edson. There, it was said, she had associated with other men several times each week, though married, and had once persuaded a 16 year old girl to accompany her to a public dance.

In her behalf it was deposed that the "other men" were chiefly persons who furnished her daily transportation from her home to Edson and return, one being her cousin and another being a man who happened regularly to be making the trip at a time of day suitable for her return. The trip required about forty-five minutes and she was always at her home before dark. At the dance referred to, she had been accompanied by her mother and the 16 year old girl had told her that she had her own parents' permission. The principal of the high school at Goodland deposed that she was an average pupil, regular in attendance, good in deportment and discipline, that she had a good reputation and that her character could not be questioned.

With this record before it, the supreme court of Kansas ordered her reinstatement in the school, upon petition for a writ of *mandamus* brought by her mother. The reasoning follows: "The constitutional and statutory right of every child to attend

¹McLeod et al. v. State ex rel. Miles, (Miss.), 122 So. 737 (1929).

the public schools is subject always to reasonable regulation and a child who is of a licentious or immoral character may be refused admission. . . . However, under the general public policy a student should not be excluded from attending school unless it is clear that his conduct comes within the rule just enumerated."

Here the court referred to the old landmark case in Missouri which decided that a school board had no right to expel a pupil for attending social parties outside of school hours

with parental approval,² and then resumed: "The public schools are for the benefit of children within school age and efficiency ought to be the sole object of those charged with the power and privilege of managing and conducting the same; and while great care should be taken to preserve order and discipline, it is proper also to see that no one within school age should be denied the privilege of attending school unless it is clear

²The old case of *Dritt v. Snodgrass*, 66 Mo. 286, 27 Am. Rep. 343.

that the public interest demands the expulsion. . . .

"On the record submitted here, we are of the opinion the evidence was insufficient to warrant the board in excluding plaintiff's daughter from the schools of Goodland. It is the policy of the state to encourage the student to equip himself with a good education.

"The very fact that the plaintiff's daughter desired to attend school was of itself an indication of character warranting favorable consideration. Other than the fact that she had a child conceived out of wedlock, no sufficient reason is advanced for preventing her from attending school. Her child was born in wedlock and the fact that her husband may have abandoned her should not prevent her from gaining an education which would better fit her for the problems of life.

"Under all of the circumstances we are of the opinion she should have been permitted to attend school."³

Three of the seven justices dissented in part from this discourse, pointing out that there was no allegation of bad faith against the school board and the judgment of the court should not be substituted for that of the board except when the board's action is capricious or arbitrary. In behalf of the majority opinion, however, two circumstances immediately present themselves: (1) from the record it seems that when the board excluded the pupil it gave her no reason other than that she was married, and (2) the opinion implies with much force that the exclusion was plainly contrary to the policy of the state as expressed in the constitution and statutes.

Thus is marked another step in the evolution of educational rights. Among the causes for which a person of school age may lawfully be barred from the public schools, marriage is not one. The Kansas case also propounds the salutary principle that a pupil is not to be lightly denied school privileges on the basis of gossip, rumor or local prejudice regarding his moral conduct. "Let him who is without sin cast the first stone."

³*Nutt v. Board of Education of City of Goodland*, 128 Kan. 507, 278 P. 1065 (1929).

Not Going to College?

ADOLF C. NELSON

Grosse Pointe Country Day School, Grosse Pointe, Mich.

HE IS "intelligent but not intellectual"; on an average the boy who does not intend to go to college represents approximately 5 per cent of the private school enrollment, although in some special cases the percentage is considerably higher. Consequently, the size of the teaching staff does not permit a separate program for the few like him. On the other hand, his training and education are just as important as that of college boys. These remarks and the cooperation of 58 private schools attest to the interest in the problem of the noncollege pupil and make this report possible.

The majority of the schools studied are primarily college preparatory. Reports have been received from 30 boys' boarding schools, 14 country day schools, 8 military schools and 6 girls' schools. In many instances the heads of these schools have written letters supplementing the questionnaires with their opinions.

Sixty per cent of those replying think that it is becoming more and more a duty of the private school to educate the noncollege pupil. The negative side argues, however, that most private schools exist for college candidates alone and other schools should concern themselves with those not planning to attend college, for through specialization a better education can be provided for the noncollege girl or boy. The point is made that "when a private school

gives to a boy an education that is the end of his formal training the course should be radically different from that when a boy is going on to college."

This noncollege course has been most commonly designated as the general course, but such names as liberal, commercial, junior college, individual plan, English, scientific, special, business and music courses are used. Apparently the tendency is to give to this group a name which insinuates no lack of ability but which simply implies a different line of interest.

As would be expected, the reason appearing most often for pupils taking the noncollege course is lack of ability. However, other reasons given are: "they can't or won't read books"; "they require freedom from the tension that frequently appears in classes preparing for college boards"; "they want fewer prescribed studies and a richer curriculum with emphasis on the cultural subjects," and "they are interested in a vocation where experience is more valuable than further study."

Should noncollege pupils later decide to attend college, it is a matter of finding a college that will accept the individual after seeing his record and, in most cases, of obtaining a recommendation from the head of the school. More than 30 universities and colleges admit graduates of the general course.



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- To every member of the N. E. A. . . . Heywood-Wakefield Company extends friendly greetings and congratulations upon a year of outstanding achievement. May the St. Louis meeting prove a source of help and inspiration for the year of 1940 . . . and, may those constructive resolutions which you adopt in session, be realized quickly and completely.

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Emphasis on Culture

HARRY A. BROWN

Superintendent, Needham, Mass.

THE teachers' college needs a new program and a new procedure organized upon a new foundation. Recent interpretations give new meaning to the objectives and processes of childhood education. A new psychology has furnished a new conception of learning, which has provided a basis for a fundamental revision of teaching procedures. A new social viewpoint that has emerged in recent years has led to a new conception of the function of the school in relation to the social order. From these three influences has come a new and a better theory of teaching. All these facts suggest a thorough redirection of the work of public schools.

These new points of emphasis in pupil education must be given serious consideration by those who administer teacher preparation in this country, for they imply a redirection of the education of teachers in order that they may lead in establishing better materials and better procedures in public schools everywhere.

Predicts Emphasis on Culture

The nature of the educative process that is now postulated implies that the teacher is a cultured individual who has had rich contacts with the fields of social science, natural science, literature and expression, fine arts and modern cultures; who has mental and physical health and who has experienced wholesome personality development; who has added to his own life a richness and a maturity of personality which enable him to participate appreciatively, intelligently and creatively in current living. I predict, therefore, that a vastly larger emphasis will now be placed upon the cultural background of teachers.

The new curriculum for the education of teachers that I am advocating consists of four parallel, comprehensive and integrated elements. The four elements have unity within

themselves but they also have considerable independence. I call them (1) education, (2) professional scholarship, (3) cultural background and (4) cultural participation.

In this proposed program education is an experience subject. No independent and isolated courses in psychology, principles of teaching, testing and measuring, school management or philosophy of education are found. One integrated course in education extends throughout the entire four years. It involves classroom study of appropriate topics and extensive and constant concurrent experience in classrooms as the experimental basis for learning. Students do something with their learning while they are learning as well as after they learn.

Great stress is placed upon the idea that the technic of teaching may best be acquired largely through actual experience in teaching under proper guidance. Educational practice is based upon a modern dynamic type of psychology which respects the development of personality and conceives of learning as the continuous and effective reorientation of personality in relation to civilized living. An appropriate philosophy of education emerges during the four year period. All technics are acquired functionally by use but sufficient consideration is given to underlying theory.

"Professional Scholarship"

Professional scholarship is a term that describes the materials that need to be used in teaching. It is conceived as direct and explicit study of the culture materials used in pupil education and whatever background for those materials is necessary for an understanding of the materials and their use in teaching.

The old order in acquiring scholarship was the exact reverse of this new procedure. Under the old plan scholarship in the subject was sought

first and then an effort was made to derive from it materials and methods appropriate to pupil education. The new procedure begins with pupil materials, finds the need for background and then explores advanced subject matter so far as is necessary for an adequate understanding of the materials. The study of advanced background in actual connection with the study of materials of the school program provides the intellectual resources necessary for organizing units of learning in elementary and secondary schools.

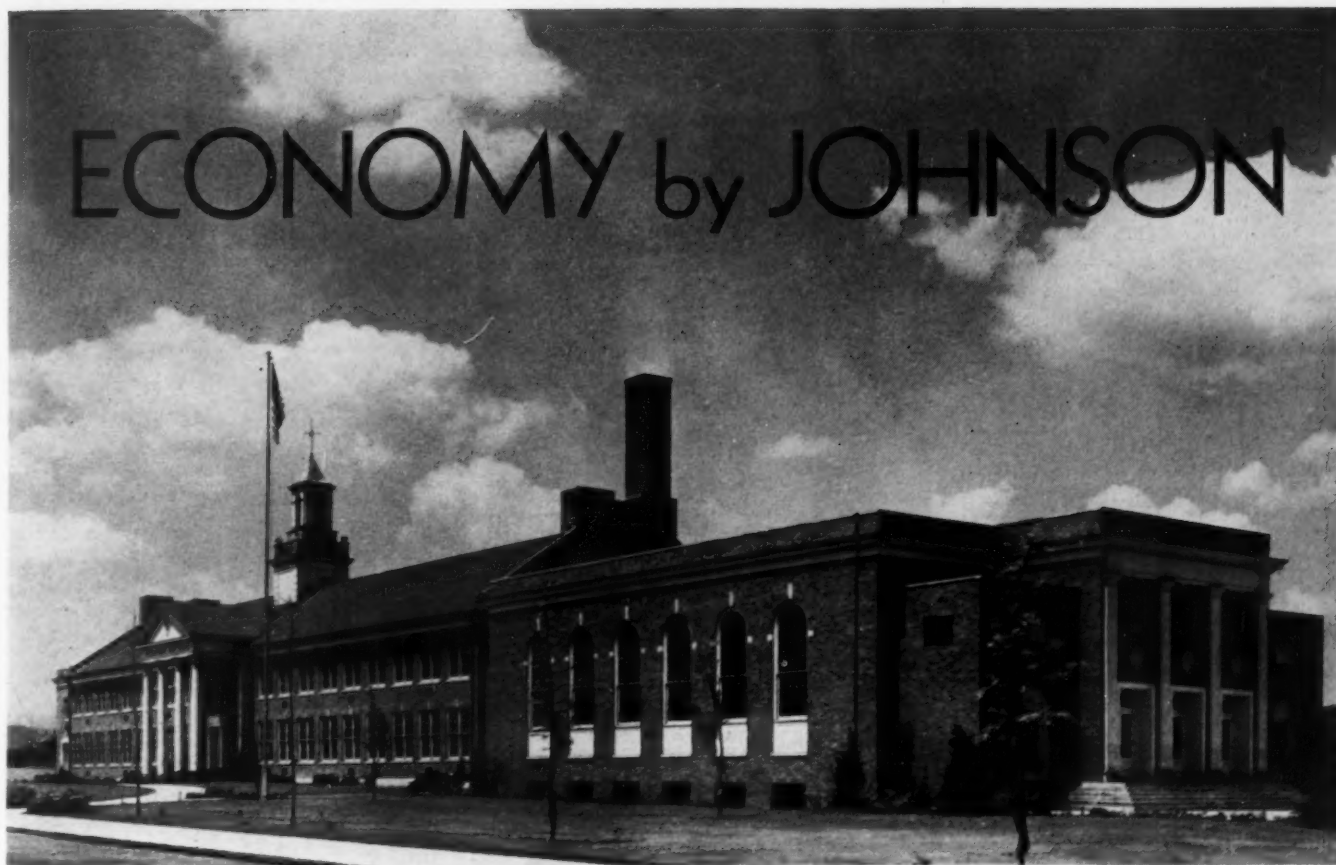
Implies Broad Background

The primary purpose of the cultural background is to establish in the teacher a new and broader viewpoint on life rather than to afford specific preparation for teaching in some unit of the public school system. Cultural background seeks chiefly understanding of contemporary American culture but it also includes study of other great world cultures. It is broad enough to include the arts in relation to life and civilization.

This teacher education curriculum includes firsthand and realistic participation in contemporary culture. Teacher education is a living experience. In the process of learning students are active participants in the life about them. They live what they learn. The principles that they learn come to them out of actual living in their apprentice teaching and in their community life. These are well-known ideas here applied to the professional education of teachers.

When teachers have sufficiently experienced democratic living for themselves and when, by study connected with much participation, they have attained social intelligence, they will have taken one step toward a desired goal. When they have acquired educational intelligence by the same process, they will be equally prepared to deal with the educational situation presented by the environmental conditions of the classroom,

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Economy is the keynote when Johnson temperature control systems safeguard the fuel supply. More than that, healthful comfort for occupants and convenience for plant operators are assured. Regardless of the type of heating and ventilating systems employed, Johnson apparatus, specially tailored to fit the requirements of the particular installation, answers all the problems in the automatic control of temperatures.



In the High School at Hollidaysburg, Pennsylvania, 32 Johnson Dual thermostats operate valves and dampers in 27 unit ventilators and also valves on direct radiators. Without separate steam mains, a normal occupancy temperature is maintained in those rooms which are in use, while the unoccupied sections of the building are carried at an "economy temperature". Thus, classrooms, gymnasium, and provision for a future auditorium are handled separately. Hunter and Caldwell of Altoona, Pennsylvania, were the architects. Mulch Brothers of Hollidaysburg installed the heating and ventilating equipment.

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namely, children needing to experience the processes of education.

In organizing this teacher education curriculum, it is the purpose to avoid narrow, isolated fields of subject matter and materials that are so restricted in scope that important interrelations are missed. This requires the breakdown of the traditional compartmental lines. Under such a viewpoint the objective of teacher education is creative leadership acquired through varied experiences in the activities of school life and participation in community affairs. Emphasis is placed upon more and more responsibility in thinking and acting.

I shall now propose a curriculum for the preparation of elementary school teachers. It contains eight subjects only. Within these eight comprehensive fields are centers of interest continuing through from one to four years in a unified sequence of study and activity. These eight fields include four parallel elements. The fields are as follows:

English: (1) General Literature and Expression, chiefly contemporary poetry, fiction, novels, plays and creative writing; (2) World Literature and Expression, poetry, fiction, novels, plays and creative writing.

Stresses Environment

Natural Science: (1) Natural Science in Relation to Modern Life, consisting of materials of all sciences integrated into a comprehensive whole which stresses elements in the natural environment of man; (2) Fundamental Concepts and Principles of Nature, an advanced science study that emphasizes the unity of science and avoids the usual compartmentalization.

Social Science: (1) Contemporary American Civilization, a vivid, inspiring and challenging description of the American scene and an absorbing consideration and discussion of its chief problems and issues; (2) Civilizations and Cultures of the Modern World, a comparative study of world civilizations and cultures; (3) World History of Civilizations and Cultures, a study of contemporary world civilizations in historical perspective; (4) Problems and Issues of Modern American and World Civilization, an intensive study of

crucial economic, political and social problems with world viewpoints.

Fine Arts: (1) Meanings, Values, Appreciations and Creative Expression in the Fine Arts, including music, architecture, sculpture and paintings; (2) World History of Literature and the Fine Arts, with creative participation.

Health and Physical Development: (1) Health and Physical Development, with games and dancing; (2) Social and Personal Hygiene; (3) Mental Hygiene and Personality Development.

Social and Educational Contacts

Student Life and Cultural Living:

(1) Participation in Institutional Life and Contemporary Culture Activities, including clubs, societies, music, art, dramatics, dormitory life, community life, individual and group enterprises related to personal living and happiness and, especially, the widest possible wholesome and pleasurable but educational contacts with social and cultural institutions and activities of modern life.

Education: (1) Organization and Purpose of the American Educational System, including a survey of teaching fields, constant observation and nonteaching participation, study of appropriate subject matter the need for which has been recognized in this experience; (2) Learning and Theory of Teaching, to which are added constant participation in group and individual living of children in school and outside of schoolrooms, and continued study of subject matter under the impulse of recognized needs; (3) Psychology and Practice of Teaching, Testing and Classroom Organization, accompanied by constant preliminary teaching and continued study of subject matter; (4) Classroom Organization and Technique of Teaching, as an outgrowth of constant responsible student teaching accompanied by study of subject matter and especial consideration of curriculum materials as needed for teaching purposes.

Each of these four units comprehends a continuous, integrated year's work in education. In addition to this work, which represents education as largely an experience subject, a continuous year's work in the last year is devoted to the philosophy of

education, under the two titles, Modern Schools, Their Program and Organization, and Social Philosophy of Education.

Curriculum Materials and Background: Curriculum Materials and Appropriate Background are studies that go forward during the entire four years in constant connection with experience. These should be so closely integrated with the work in education that all three constitute a single unitary professional experience. No special methods courses are offered and all background study in teaching fields occurs in connection with study and use of curriculum materials. In a word, the whole curriculum becomes an integrated experience.

A definite time allotment is allowed for student life and cultural living as a part of the curriculum. All the other phases of the curriculum have aspects that consist of realistic experiencing of various kinds. They, too, lead out into cultural living. This is particularly true of all the work in the field of social science.

Comprehensive Course of Study

Under this plan the teachers' college curriculum consists of a small number of comprehensive courses in which activity and experience constitute predominant elements. The library, the laboratory in its broader meaning, the elementary and secondary school classrooms, as well as the community, are the places in which students work and study. The comprehensive courses are largely organizing centers for what is done by students. Open forum discussions are a predominant feature of these comprehensive courses. Critical attitudes are fostered in these discussions.

In this manner the entire process of teacher education becomes a unitary professional activity in which a faculty of scholarly and cultured men and women and a relatively small group of students work together in studying and learning. Experimental learning and realistic learning are the chief features in studying social and educational problems. These characteristics will become more and more the predominating features of teacher education.

N.E.A. Convention, St. Louis, Mo., Feb. 24 to 29



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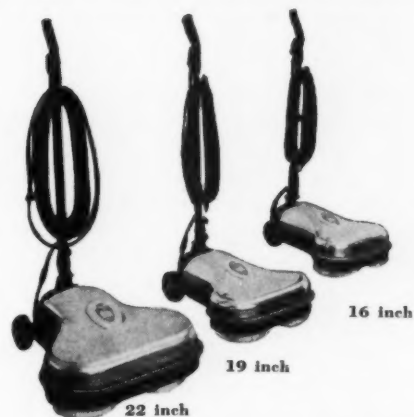
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BETTER PLANT PRACTICES



Best for Floors

Everyone has his own ideas as to what constitutes an efficient floor sweep. Loring C. Halberstadt, director, business and research, Terre Haute public schools, Terre Haute, Ind., for example, told us not so long ago that he preferred the stock to be of horsehair, bristle and some fiber.

"Such a blend," Mr. Halberstadt explained, "is important in removing heavy subsoil and dirt. If the outside row is made of extra stiff bristle and a combination of horsehair and fiber is used for the center, the brush will sweep up all fine dirt and dust. Blocks and handles may be of beech, birch or maple, finished in transparent varnish or lacquer.

"We use a brush 14 inches in length in classrooms, as experience seems to indicate that that length is easier to handle in sweeping around and under school furniture. A 14 inch block may have as many as 100 inside holes and 62 outside holes. However, the tendency seems to be to decrease the number. A 3½ inch length of hair set in pitch is a type that will give quick, efficient service."

More on Floors

How are your floors doing these days? If the answer is "Not as well as we would like, thank you," try some of the following suggestions, which were passed along to us the other day. A schoolman we know guarantees you can't go wrong if you follow these rules carefully.

"Never flood floors with water.

"Never use scalding water on rubber or rubber composition floors.

"Never use acid for maintenance cleaning of floors. Flooring experts frequently give tile floors one cleaning with acid in order to remove the scum formed by the cement and glue used in laying the floor. Do not again use acid.

"Do not wash or clean new installations of rubber flooring until they have been laid at least seven days.

"Do not use cleaning preparations containing caustic (lye), strong alkalis, gritty materials or excessive quantities of soaps and greases.

"When the cleaning material collects

in a white line along the joints in the flooring, too much of the material is being used. This excess cleaner can be easily removed with warm water.

"It is essential that the water in the second mop pail be changed frequently and that the mop be thoroughly rinsed after each application. If this is not done, you are simply returning the dirt to the floor.

"Marble will not retain its beauty unless properly cleaned. Do not allow ink or other stains to remain on marble. Remove them promptly, using your cleaning material as a poultice."

For a Rainy Day

On the next rainy day when mud is carried on to the terrazzo floors, try sweeping with sawdust dampened with water. This suggestion is made by George L. Blackwell, secretary and business manager, school district of St. Joseph, Mo. "For corridors and rooms with wood floors," he adds, "a floor sweep of sawdust just slightly dampened with water also may be used. It is not advisable to use oil, as it will permeate pores of the wood and leave an unsightly floor as well as increased fire hazards. There is no necessity for the use of sand in floor sweeps, as this tends to damage the floors by filling up the cracks and being ground into the wood finish by the constant tread of pupils' feet."

We Live and Learn

Take your notebook along and we'll see what Ruel E. Daniels, school district clerk and business manager at Belleville, N. J., is up to these days. Better have some extra memo pages, too, for you'll find there is plenty to write about.

If you are unfortunate enough still to have in any of your buildings some of the old-fashioned slate urinals, you know what the problems are. Practically impossible to banish the odor! Under such circumstances, Mr. Daniels prescribes a generous application of good aluminum paint.

When wood about the window sills rots, as invariably happens, you can

attribute it nine times out of ten to the fact that the bottom of the window sash has not been painted thoroughly, with the result that the moisture has seeped upward. See that this surface is given a liberal coating of paint and the problem will be solved; minimized, anyway.

Is more electric current being consumed than seems warranted? In each classroom in the Belleville schools appears a neat printed sign which reads, "Please extinguish lights when not in use. Thank you." Simple, but effective, according to Daniels.

Do you know the exact date when each room in the building was painted last? Sufficient to keep such records in the office, but why not make it even easier? In the back of the teacher's cabinet in classrooms or in inconspicuous places in other rooms throughout the building, record the date of painting and the type of paint used. There it is at all times when there is need for checking up.

Ready With First Aid

Plenty of first-aid cabinets is the rule in the schools at Greenfield, Mass., the ratio being approximately one cabinet to every four classrooms. In addition, Katherine E. Fleming, school nurse and supervisor of health education, explained to us: "There are cabinets in each individual shop of the vocational school and in the boys' and the girls' gymnasium lockers in the high school. There are also facilities for first aid in the nurse's office, which is located near five of the 14 school buildings."

Compile This List Soon

A check list of all maintenance items other than the regularly scheduled cleaning jobs can well be used by the maintenance supervisor as a constant reference sheet to determine whether or not the summer program is being pushed to completion at the proper time. This list should be based on all requisitions for repairs coming from the schools and should be continuously referred to by the person whose responsibility it is to see that the program is carried along to its proper completion.



THAT'S MY STREET

"So you don't think we can take our 30,000-ton ship between those islands in this fog.

"That's my street. I know that channel better than you young ladies know your way around your own homes. I could almost take this ship in there blindfolded."

* * *

When it comes to "cutting corners," and getting safely through tight places in regard to dishwashing, maintenance cleaning and germicidal operations—well, that's right down the Wyandotte Representative's "street."

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When and how can our nearest representative serve you? See next page. 1



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That's what several executives have told us—these executives are daily supervising maintenance cleaning and keep accurate cost records.

"When you tell us that seven cents worth of Wyandotte Detergent will wash 507 square feet of soiled painted surface, or clean 230

washbowls you figure too low. We get more work than that with seven cents worth of your product, to say nothing of the value of the advice given by your Service Man. Our labor costs are low, our washed surfaces look good, and we don't find any sign of cleaning wear or abuse on any Wyandotte washed surface."

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How Scots Conduct Education

CHARLES E. PRALL

Coordinator, Commission on Teacher Education
American Council on Education

SCHOOL executives accustomed to separate boards for the administration of education may not always be conscious of the way in which administrative functions are conditioned by the type of authority in control of the schools.

Eight years ago Scotland experienced the wholesale elimination of small, specialized authorities for the administration of local government. Education, previously under the control of single function or *ad hoc* bodies, was given to the county councils, together with many other responsibilities that had been formerly exercised by special bodies of various types. These changes created administrative problems that have not yet been fully solved.

There has been no appraisal of the success of the new plan for education. The review of the administration of a single function, such as the selection and promotion of teachers, will illuminate the problems of the directors of education and show relations between administrative problems and the types of authorities controlling education.

Local Government Act

Before 1929 different phases of local government were administered by 869 parish councils, concerned with relief of the poor, 201 town councils, 33 county councils with 98 district or subdivision committees, 37 education authorities and 3 other types of *ad hoc* bodies aggregating nearly 100 authorities. The Local Government Act of 1929 reduced the number of administrative bodies to 55, consisting of 24 large burgh councils and 31 county councils and provided for but one local authority in each area for the administration of local government.* With the abolition of the special bodies the county councils took over the bulk of the transferred responsibilities. The town councils in the four largest cities be-

*Some 170 town councils of burghs under 20,000 population and about 200 district councils were retained with restricted functions.

came the local authorities for education but elsewhere the county councils became the education authorities.

The county council is elected triennially. It consists of members elected for the landward area and of members representing the burghs included within the county. The former are elected by popular vote of the electoral divisions, while the latter are elected by the town councils from their own numbers. The personnel of council and committees remains the same for a three year period. While there are small changes at the beginning of each period, they are less than one would anticipate. The councils of the more populous counties and cities are large bodies, varying from 70 to 90 members. Work is done almost wholly by committees.

Typical Education Committee

No fixed proportion of council members must serve on the education committee. In one populous county where the problems of representation are complex, the entire council of 90 members is on the education committee. Usually the number so serving runs from 25 to 40. The need for having representatives from every burgh on certain education subcommittees, coupled with the desirability of a balance between burgh and landward members on the parent committee, results in larger council representation than would otherwise obtain. These numbers are slightly increased by the appointment of nonmembers of council who are conversant with educational problems or who act in representative capacities in connection with the transferred church schools. The typical education committee, then, consists of from 35 to 50 members.

The county council may delegate to its education committee all functions relating to education except the power of raising money by rate or loan or of incurring capital expenditure. Similarly, education committees are restricted from delegating to

their subcommittees functions concerned with (1) the appointment, transfer and remuneration of teachers; (2) the establishment of bursaries or maintenance allowances for secondary school attendance, and (3) the establishment or discontinuance of technical schools.

From four to seven subcommittees perform the work of the education committee, even though the latter must meet regularly to confirm the action of the subcommittees dealing with the restricted functions. The typical education committeeman is a member of from two to four subcommittees, the most popular being those dealing with teachers or staffing and bursaries.

The council work is heavy, necessitating frequent meetings of the various subcommittees. The minutes of one large authority reported 78 subcommittee meetings in a six weeks' period. Several of the subcommittees concerned with phases of education, housing and public health met every two weeks during this period. Education committeemen have the heaviest assignments; those who represent the burghs must attend their own council meetings as well. Each council or committee member receives a small maintenance allowance for the scheduled meetings but only those who lose wages because of attendance receive pay.

Labor Seeks Representation

The demand on the member's time is reflected in the occupations of those who stand for election. In the industrial areas trade union officials, already on salaries from the unions, house and insurance agents and other men with flexible work schedules predominate. In two centers it was reported that the labor representatives on the council frequently sought appointment on the education committee while the conservatives were less desirous of places.

In this hierarchy of committees and interchangeable committeemen the most important person is the director of education. Most of the di-

rectors have been teachers; the majority, headmasters or rectors, while a few were originally lawyers. Many were directors under the former *ad hoc* authorities and are thus older in service than either the system or the members of their governing bodies. The number, variety and difficulty of the questions faced by the education subcommittees have placed upon the director the task of doing most of the thinking for the groups. But this does not mean that the committee members have been reticent about making decisions in areas with which they feel familiar.

One director reported that his committee had little or no opinion on such an issue as centralized *v.* isolated schools for postprimary children but that the question of supplying free clothing at subsistence or higher levels was bound to be hotly contested. One function uniformly exercised by committeemen was the distribution of maintenance grants, traveling expenses and the like to young people who had shown ability to profit from secondary or higher education and who might otherwise be deprived of the privilege.

As might be expected, the selection and assignment of new teachers are not beyond the powers that these committees feel they should possess. Had there been misgivings on this question they would have been more than satisfied by the pressure for positions and the attendant canvassing of committee members for jobs. The strategies of the directors to eliminate canvassing and to narrow or control the layman's participation have resulted in a variety of selection procedures.

Control Over Appointments

One director of a large authority had been able to get the exclusive control over first appointments by closing his lists to nonresidents and appointing from a placing list in order of merit and in order of date of graduation. The former was determined wholly by the training school or university. To relieve his teachers' committee of pressure from teachers seeking promotions to headships, first assistants and positions as infant mistress he had obtained the services of a rotating committee of four members, selected by ballot from the membership of the staffing committee. This group interviewed the

five or seven candidates selected by the director and made the final choice. Only the head of the staffing committee was a continuing member of the rotor committee. The others served for one month but did not know in advance when they would be called.

Another director had obtained the right to appoint without consultation any resident who had completed his teaching preparation with a rating of "exceptionally promising," the highest given. Those reported as "very promising" were recorded in the placing list in alphabetical order and placed in that order unless the urgency of some candidate's status warranted earlier appointment. Those rated "promising" were interviewed by the subcommittee named for this purpose and were generally placed on a temporary list. Such individuals served as substitute teachers until such time as they had earned permanent appointment.

Interviewing Teachers

For a third authority, noted for the zeal of the committee members, a "big six" group of the teachers' committee not only interviewed prospective teachers but joined the director in deciding who should go on the preference list and who on the larger and more delayed reserve list. About a fourth of the places on the short preference list were reserved for candidates carried for a year or more on the reserve list. This detail was indicative of the opportunism that must have characterized the procedures of selection.

The small group, in conference with the director, made the first sorting of the applications for headships. The survivors appeared before the full staffing committee, which proceeded further to eliminate until only three or four remained under consideration. Finally, the remaining candidates appeared before the entire education committee to make speeches or answer questions, after which choice was determined by ballot. The attendance of committee members at each threshold of these selective proceedings was characteristically good.

These descriptions do not represent the full range of variation in committee member activity to be found in different areas. They are from a sampling of the more popu-

lous counties and doubtless from the most difficult situations.

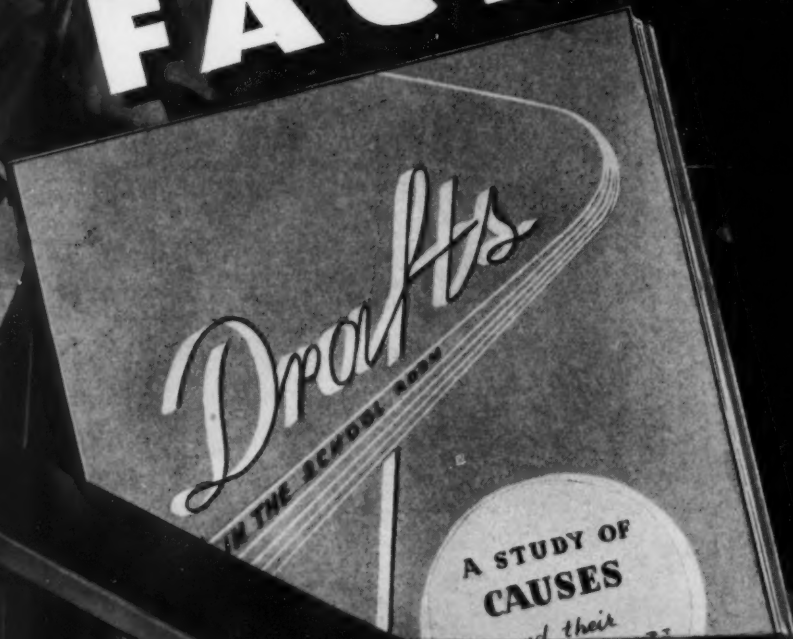
The activity of committee members in teacher selection has been prolonged by the failure to work out a satisfactory promotion procedure. Teachers are paid according to national minimum salary scales, which eliminates the urge to transfer from less populous to more populous areas and which cuts mobility to a minimum. Apart from normal progress in the salary scales, promotion comes only as vacancies occur in headships, second masterships and in posts of principal teacher of a subject. All teachers must be trained; the secondary teachers are largely honor graduates. This condition, when coupled with small turnover in the higher positions, makes for strenuous competition. Few authorities have general inspectors who get into the schools; most depend upon inspectors from the Scottish Education Department. Only the largest city has a staff officer dealing with personnel and even there the system is devoid of records having more than informational data of a factual character on teachers.

Existing schemes for promotion have been based almost wholly upon length of service. These seem to be less satisfactory than the committee and subcommittee procedures.

Advances in Scotland

Among the schoolmen there is less satisfaction with the general authority in Scotland than there is in England. The system was adopted in imitation of that set up in England in 1902 but without exempting small cities and without the freedom to delegate authority that has characterized developments in that country. Perhaps the difference is in the tradition rather than in the basic law. Some city councils in Scotland would prefer to be freed from the responsibility for education, which has involved more detailed administration than they had contemplated. Conversely, the vote getters among the councilmen seem to have relished their tasks. Students of education believe that the handling of the teaching personnel is the weakest feature of the work under the general authorities. They believe, however, that education has made notable advances impossible under the smaller *ad hoc* boards.

Let's FACE IT



A good many of the vacant seats in your school, in every school can be charged up to — DRAFTS.

In new schools or old, modern buildings or modernized buildings, a condition that upsets classes, begets complaints and circumvents the efforts of the administrative and maintenance staffs to maintain comfort conditions is the constant or periodic drafts in conjunction with ventilation systems.

Some years ago we began a complete study of this problem. A compilation of our findings, "Drafts, a Study of Causes and Corrections", is now available to school officials and executives, their architects and consulting engineers.

It covers the subject simply but thoroughly. It contains many effective suggestions of adjustment in equipment or routine. It will enable any school layman to isolate his Draft problems and institute correction.

"Drafts, A Study of Causes and Corrections" will be mailed free to any qualified school official or executive upon request to C. A. Dunham Company, 450 East Ohio Street, Chicago.

When Classroom Becomes Cafeteria

ERNEST L. MUZZALL

Professor of Education
Central Washington College, Ellensburg

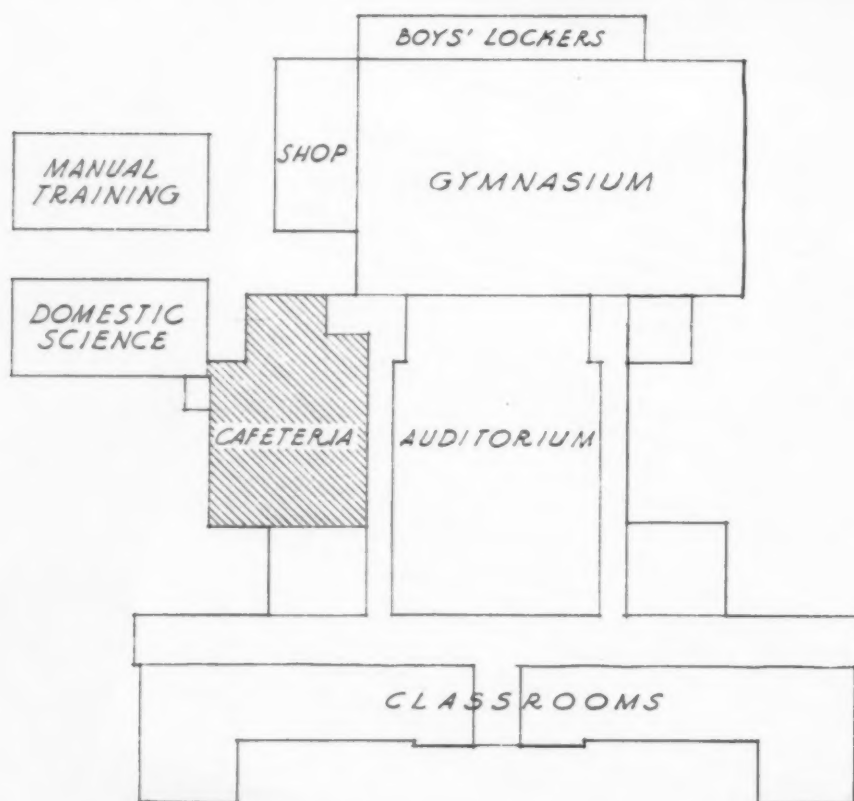
THE Toppenish Junior-Senior High School is situated in a rich agricultural area in central Washington. It is rich in pupils but poor in assessed valuation. This is because approximately 70 per cent of its area consists of tax exempt Indian lands, thus reducing the tax base for capital outlay for construction.

The school has shown more than a 40 per cent increase in enrollment during the last six years, making necessary extensive alterations and additions to the main plant.

Recently the school population reached a point where a minimum of two additional classrooms was necessary. A survey of school activities revealed a pressing need for space for five purposes. These included quarters for related art in-



A soundproof accordion partition divides the cafeteria into two classrooms.



Above: Building plan. John W. Maloney, Yakima, Wash., was the architect.

struction in the vocational home economics department; a cafeteria to serve a maximum of 208 pupils; recreational space for group and class parties; a place for pupil-parent and for faculty meetings, and facilities for vocational training in quantity food preparation and service.

This large order was complicated by limited funds, since only about \$20,000 was available. A plan was finally worked out to accomplish all these purposes. While it was financially impossible to provide separate facilities, by constructing a single story addition the main section of which was 45 by 58 feet, the major objectives were achieved. This main section provides for the cafeteria. The installation of a soundproof folding partition makes possible the creation of two classrooms, 22 by 58 feet, which may be set up when the entire space is not being used.

These rooms are equipped with tables having a working surface of 72 by 28 inches. The table tops are of pressed fir board and are treated



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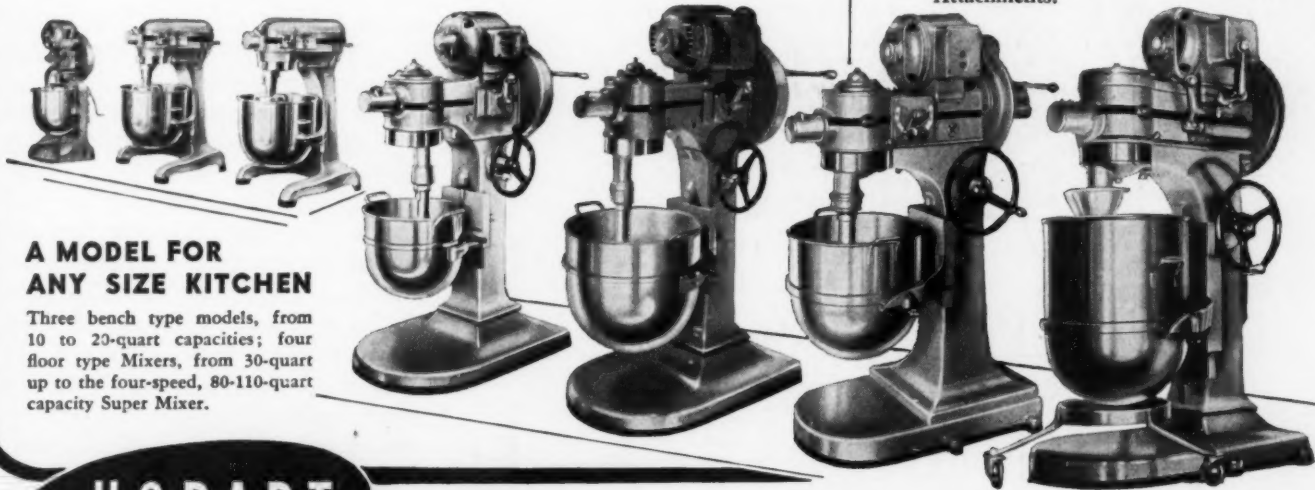
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- ☐ KITCHENAID Coffee Mills for the Home

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Detroit Public Library

with waterproof varnish to withstand constant washing. This material makes a splendid working surface, having a warm brown color that is devoid of glare. Each table seats six pupils during the lunch hour but can provide seating for eight. When the rooms are being used for classroom purposes four pupils are seated at each table under ordinary conditions. The tables are equipped with glides so that they may be moved about easily without injury to the floor. The chairs are approved classroom chairs with steel frames but with maple seats and backs finished to match the tables.

The lighting, which meets approved standards, is provided by windows on the south and west sides and by two skylights at the end. Ample blackboard space is provided on the two walls and upon six panels

on each side of the folding partition. The remaining twelve panels in the folding partition are equipped with cork board to give ample room for all types of bulletins and illustrative materials. The ceiling is treated with acoustical board.

Built-in cabinets providing wardrobes, shelves for reference materials and an 8½ by 11 inch file were constructed in each unit. A special partition with a door at each end, built between the main room and the kitchen unit, makes it possible for pupils to work in the kitchen unit without interfering with classes in the classroom.

The kitchen unit is 22 feet wide and is 35 feet long on one side and 24 feet on the other. It is equipped with a built-in refrigerator unit, 5 by 4 by 7 feet, a serving counter with three large warming pans and six

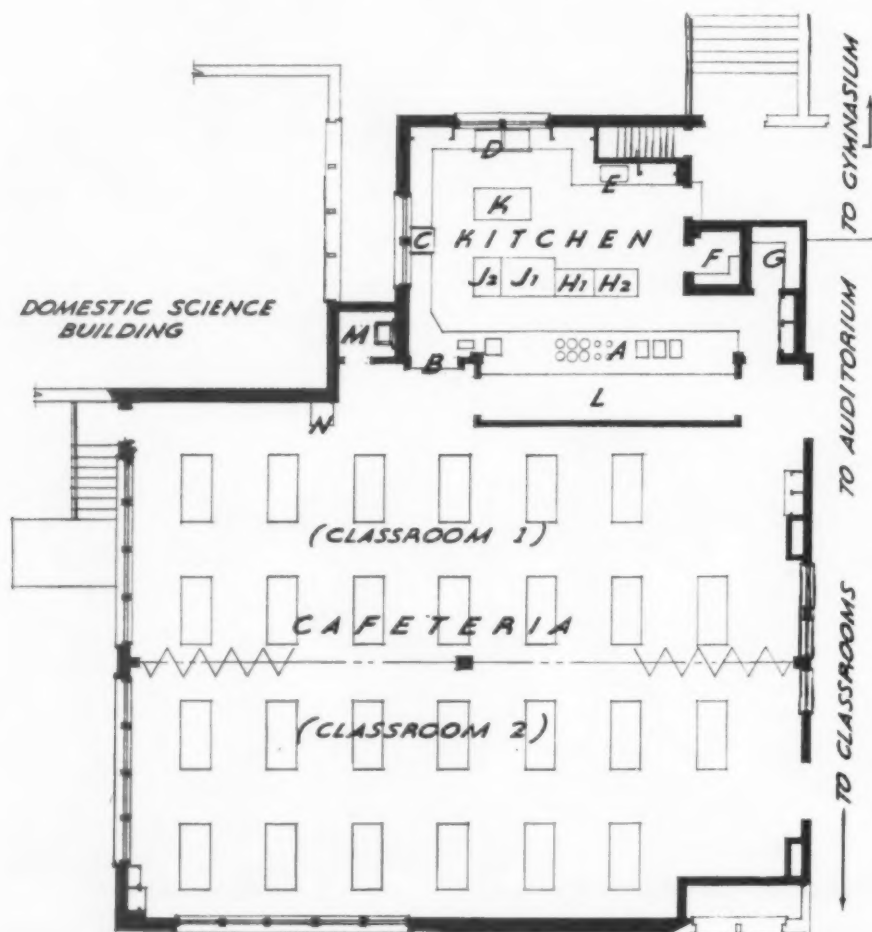
deep containers for liquid dishes, a baker's table, cook's table, soiled dish tray, dishwasher, clean dish table, food mixer, two large electric range units and ample cupboard space for all utensils and dishes. Ventilation is provided by a fan ventilator placed in the skylight. Heat is supplied by a fan unit mounted on the west wall, which is connected with the main hot water system. There are two large galvanized iron sinks for pots and pans and a smaller porcelain sink for other purposes.

A storeroom, 5 by 8 feet, for canned goods and similar materials is situated at one end of the kitchen. Storage for vegetables and crated and sacked supplies of various kinds is provided in a basement room directly under the kitchen and of the same dimensions. This storeroom is equipped with a service chute so that all supplies may be delivered directly into the basement.

The central location of the cafeteria and kitchen unit is especially convenient. The main room of the cafeteria will accommodate all ordinary events and special banquets. However, the school serves as a community center and occasionally the need arises to serve many more than can be accommodated in the cafeteria. This need is met by using the gymnasium as a banquet room. The gymnasium is directly across the hall from the kitchen and it is situated so that it may be used separately from the rest of the building; it has a separate steam line.

The dishwashing, the washing and drying of table tops and the cleaning of floors are done by a squad of boys trained for this work; they are paid for it. Immediately upon the dismissal of classes for the lunch hour, the folding partition is rolled back to the wall and pupils are admitted to the entrance of the kitchen where they may make a selection from a large number of dishes. As soon as the pupils have completed their luncheons the partition is closed, the floors are carefully swept and the table tops are washed and dried; the two rooms are ready for classes again.

The cost of the cafeteria and kitchen unit, including the general construction, plumbing and heating and architectural services, was \$17,217. Complete equipment for the unit amounted to \$4067.



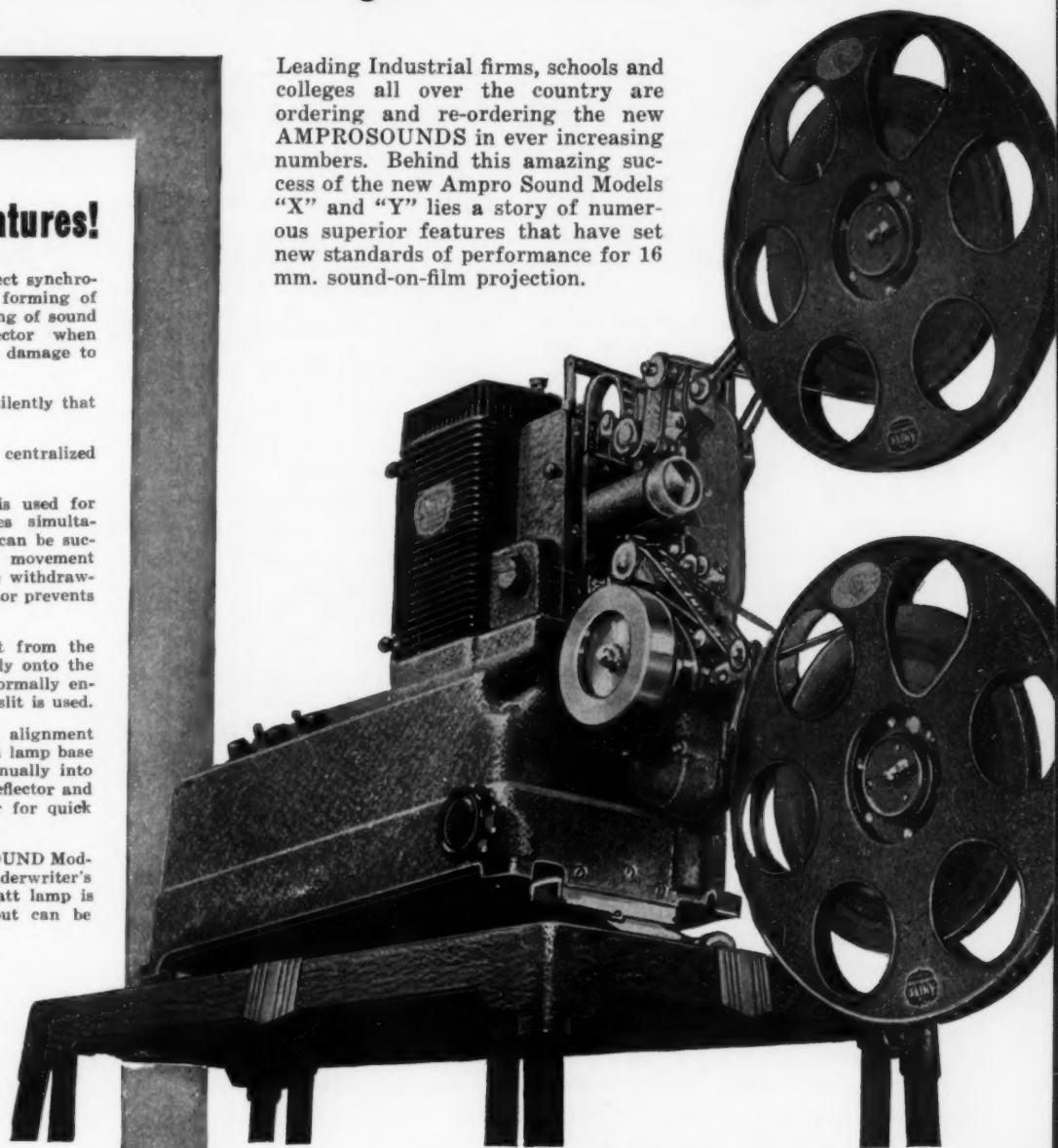
Above: Plan of cafeteria. There are many fine points to be noted in this arrangement: the rear entrance with proximity to vegetable sinks, refrigerators and storage areas; the layout of the food preparation equipment so that food may be served directly to the counter. Legend: A—steam table; B—slide up door for return of used dishes; C—dishwasher; D—scullery sink; E—cook's sink; F—refrigerator; G—supply closet; H₁ and H₂—oven and oven table; J₁ and J₂—range and range table; K—cook's table; L—passage; M—janitor's closet, with water heater overhead, and N—glass filler.

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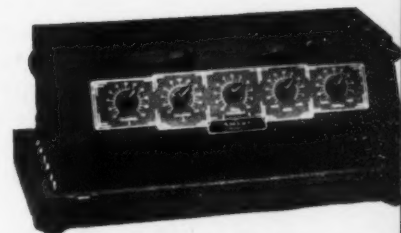
- **NEW sound loop synchronizer**—Permits perfect synchronization of picture and sound by the exact forming of sound loop. Guesswork is eliminated. Resetting of sound loop accomplished without stopping projector when loop is lost through faulty film and without damage to film.
- **EXTREME quietness of operation**—Runs so silently that no "blimp" or covering case is required.
- **EASE of operation**—All operating controls centralized on one illuminated panel.
- **MAXIMUM film protection**—A triple claw is used for moving film, engaging three sprocket holes simultaneously. Film with two adjacent torn holes can be successfully used. Ampro patented "kick-back" movement lifts the claws from the sprocket holes before withdrawing, eliminating film wear. Take-up compensator prevents starting strain.
- **IMPROVED sound optical system**—The light from the exciter lamp is projected directly and optically onto the photo cell without the losses or distortions normally encountered when mirror, prism, or mechanical slit is used.
- **IMPROVED light optical system**—In perfect alignment at all times, pre-set by the factory. Projection lamp base adjustable so that filament can be moved manually into perfect alignment with optical system. The Reflector and Condenser lenses are mounted on front cover for quick cleaning without the necessity of using tools.
- **1000 WATT Illumination provided**—AMPROSOUND Models "X" and "Y" are approved by the Underwriter's laboratories for 1000 Watt lamps. A 750 Watt lamp is normally furnished as standard equipment but can be interchanged with 1000 Watt lamps.
- **PERMANENTLY attached reel arms**—for Quick-Set-Up—Reel arms are permanently attached; merely swivel into position for instant use. Accompanying belts, always attached, swing directly into position.
- **SMOOTH sound**—Entirely free from waver and distortion due to its finely balanced fly-wheel, mounted on airplane type grease sealed ball bearings, and Ampro's patented film guides. Curved film guides placed before and after the sound drum and sound sprocket prevent the film from flapping.
- **IMPROVED sound drum and filter**—Mounted on precision ball bearings, the rotating type of sound drum avoids sliding action between the drum and film—prolongs film life, and maintains high quality sound. Curved film guides placed before and after sound drum eliminate weaving and "Belt action."
- **SIMPLIFIED threading**—Same as threading silent projector, with exception that film also loops around sound drum, eliminating looping film over a third sprocket. Film guides assure correct, easy threading.
- **FAST Automatic rewind**—400 ft. reel rewinds in 35 seconds—1600 ft. reel in 75 seconds without damage to the film. No transferring of reels or belts.
- **USES Standard lamps**—Standard prefocused lamps, up to 1000 Watts. "Special" high priced lamps not required.

Leading Industrial firms, schools and colleges all over the country are ordering and re-ordering the new AMPROSOUNDS in ever increasing numbers. Behind this amazing success of the new Ampro Sound Models "X" and "Y" lies a story of numerous superior features that have set new standards of performance for 16 mm. sound-on-film projection.



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A powerful Auxiliary Amplifier for use with any AMPROSOUND Projector. Provides adequate volume for audiences up to 10,000 and over. Is particularly suitable for the low-priced Amprosound class-room and industrial models "X" and "Y." No alterations are required to attach one or two standard Ampro projectors to this remarkably new auxiliary amplifier which will boost the volume output to 55 watts with less than 5% total harmonic distortion and a maximum output of 85 watts. An additional change-over relay is available for automatic fading from one projector to the other. Twin Pilot Lights illuminate control panel facilitating operation in darkened rooms. A monitor outlet enables operator to "listen in" and better control operation. Dual Micro-



phones, Dual Projectors and Dual Phonographs can be used in various combinations. Individual Bass and Treble Tone Compensators are provided.

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Food Habits and Health

MARTHA KOEHNE

Nutritionist, Bureau of Child Hygiene
Ohio State Department of Health

WHEN an educational institution enters the food service field, it must safeguard the health of the pupils and give them high standards by which to judge good food sanitation practices. Health departments, parents, faculty and pupils should be able to point with pride to their school lunchroom as a model for sanitary food service.

A few school boards neglect to supply screens for windows and doors of the kitchen and dining room. Unless school toilets are strictly sanitary the health hazard caused by flies is greatly increased, in addition to being an outrage to all esthetic and hygienic principles.

In one school bags of flour were discovered stored on the kitchen floor, because of lack of storage space or facilities. The home economics teacher, who had no authority or responsibility in the lunchroom, found the cook-manager one day sifting the mice-infested flour for future use!

Scald Dishes Thoroughly

Hot water should be abundant so that all dishes and utensils can be scalded after careful washing. Yet in some schools all water used for dishwashing and rinsing must be heated on the stove. Under such circumstances a few of the dishes may be scalded but not all, for the pan of rinse water soon gets cold, as well as soapy. In another school all the dishes, pots and pans used in food service for 70 children were washed in one sinkful of dish water!

Some lunchroom cooks neglect to launder dish towels daily. Cracked, nicked dishes should not be used, for they cannot be kept clean. Enamel cooking utensils and steam table containers with enamel broken or worn off likewise should be replaced.

The cooks and pupil helpers who handle the food should be immaculate in appearance and should practice approved principles of hygiene in methods of handling food and in

In Ohio an advisory service for lunchrooms in rural and small town areas is provided. Combined with this talks are presented to upper grade pupils; also to parents, when possible

their personal habits and should be free of any contagious disease.

Every school lunchroom should offer a special plate lunch at a bargain price. In many consolidated rural schools located at a distance from a village, such a plate lunch may be the only food offered.

If the lunchroom is located in a village or city, however, where there are competing restaurants, hot dog stands, soda fountains and confectioners' stores, it is advisable to offer a greater variety of food to the children to prevent them from eating their lunches in these places. Even if a greater variety of food is offered in village or city lunchroom, the manager should select from foods available each day a plate lunch that can be sold at a bargain price.

This special plate should represent a nutritionally adequate meal for the children. Before starting a plate lunch, however, the manager should understand the prevailing food habits of the children and community. After obtaining this basic information, a wise manager will not plan an ideal type of plate lunch immediately if the food customs of the community are far below this standard. If she does the children will not buy it.

The plate lunch menu should start on the basis of prevailing food practices with the gradual introduction of more desirable foods after the teachers and parents have had time

to cooperate by explaining the importance of certain food habits to health. Remember that persons of all ages like the foods they are accustomed to eat. New protective foods that the manager desires to introduce should be incorporated into the plate lunch menu gradually in combination with well-liked familiar foods. Half of a sandwich with an attractive filling may be dark bread and half, white when first placing dark bread on sale. First servings of salad should be small and made from familiar food or served free of charge.

Publicity for the plate lunch specials should be given in the classrooms every morning and for the coming week in district or school newspapers. These menus should be accompanied by a statement of the amount of money saved.

Introducing the Special

Some managers, on introducing the plate lunch special, make the size of servings distinctly smaller than the servings the pupils get on purchasing the same foods à la carte. This policy defeats its purpose for there is then no incentive to buy the special for it isn't a bargain. The cost of the special should represent lowest possible profit, reliance being placed on volume sales to add to net profits. Additional profit will then be earned by the higher price charged for the same sized portion of any item sold à la carte.

When a lunchroom serves children in the elementary grades, a plate lunch is of special importance. Little children have difficulty in seeing what is on a cafeteria counter and in deciding what they want. Sometimes teachers or specially selected pupil hosts accompany first and second grade children to help them, but seldom is assistance given to older children.

Candy should not be sold in rural schools. If a school is located in a

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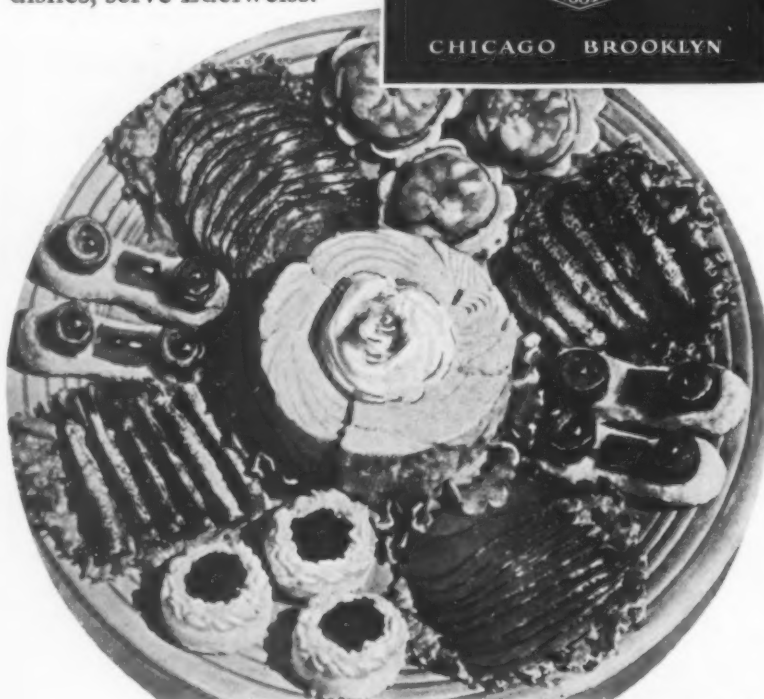
city or a village and the school board will not rule that only pupils who go home for lunch may leave school grounds during the noon hour or during the school day, some candy may have to be sold at school to meet competition of near-by confectioners. Under such circumstances it is recommended that meal tickets be sold to the children at substantial reductions in price. Some schools offer 20 per cent saving, selling \$1.25 meal tickets for \$1 or \$0.75 tickets for \$0.60. Other schools offer only 10 or 15 per cent reductions. Under

this plan, if children want candy or rich cake or fancy cookies, cash must be paid for them. This charge cannot be punched off of the meal ticket.

It is also recommended that school lunchrooms discontinue selling commercial orange beverage. This product is made up at many dairies by mixing commercially canned orange-ade base with six to ten times its volume of water and with considerable sugar. The beverage is then bottled in half pint or quart bottles and distributed to homes and schools.



Call them what you will—hors d'ouvres or just appetizers—Sea Foods served in this tempting fashion are growing in popularity . . . as are the many Salmon, Tuna and Shrimp dishes. For any use, the great variety offered you under the Edelweiss label assures the finest of its kind. The seas and the waterways of the world have been combed for this assortment of Sexton delicacies. For fine flavor and real economy in special or everyday Sea Food dishes, serve Edelweiss.



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The Massachusetts Agricultural Experiment Station has reported that, if consumed immediately after being bottled, the average vitamin C value of the beverage is 10 per cent of the amount present in the same volume of fresh or canned orange juice. This value decreases conspicuously on standing from twenty to forty-four hours. Yet the product sells for 4 or 5 cents a bottle. Inasmuch as most children have only 8 to 12 cents to spend on their whole noon meal, the spending of 4 to 5 cents of this amount for less than 1 ounce of fruit, a little sugar and some citric acid should not be encouraged.

In many homes and schools children have difficulty in drinking plain milk. Demand for chocolate milk in cities and rural areas has led many dairies to distribute it. The composition of plain milk is controlled by law, both as to cream content, watering and bacterial count. This is not true of chocolate drink but it should be enforced for chocolate milk. The milk used should contain 3½ per cent butter fat and should be pasteurized. And there are scientific reasons for limiting the amount of chocolate present to 1 per cent.

School and health officials should demand definite standards for the product being sold to schools in each community. Dairies are usually glad to meet such standards when confronted with legitimate reasons.*

*From a talk delivered before the Conference of Food Service Directors, Baltimore.

FOOD FOR THOUGHT

Senior High School Menus

Beverages

Plain milk 3c Chocolate milk 5c
Cocoa 3c

Sandwiches

Ham 5c Cheese and nut 5c
Tomato and lettuce 5c
Buttered rolls 2c Whole wheat 2c

Hot Dishes

Cream of pea soup 5c Cheese roll 5c
Stewed corn 5c Creamed carrots 5c
Shepherd's pie 5c

Salads

Waldorf salad 5c Plain lettuce 3c

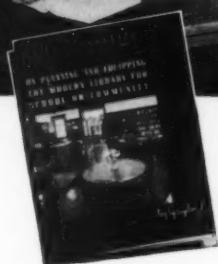
Desserts

Banana pudding 4c Ice cream 5c
Chocolate sauce 1c
Fruit 4c Apples 1c
Cakes, Candy, Pretzels 1c

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News in Review

School Building Council

"Will History Repeat Itself?" is the question that members of the National Advisory Council on School Building Problems will attempt to answer at the opening session of their eleventh annual conference Saturday morning, February 24, in St. Louis.

Pointing out the lag in school building construction during the World War, members will discuss what can be done to prevent another halt of school building construction in the event of another war. Presiding at this session will be Francis R. Scherer, president of the council. Arthur B. Moehlman, editor of *The NATION'S SCHOOLS* and professor of school administration at the University of Michigan, will lead this discussion.

Members of the panel will include the following members: John W. Brooker, president, National Council on Schoolhouse Construction; John J. Donovan, architect, Berkeley, Calif.; W. G. Eckles, director of school buildings, Mississippi State Department of Education; Eugene B. Elliott, Michigan state superintendent of education; Alonzo G. Grace, state commissioner of education, Connecticut; Ralph E. Hacker, architect, Fort Lee, N. J.; John Lewis, president, National Association of Public School Business Officials; Raymond V. Long, director of school buildings, Virginia State Department of Education; Worth McClure, superintendent, Seattle, Wash., and Frank H. Wood, educational consultant on buildings, Cortland, N. Y.

At the luncheon following the panel discussion, which will be at the Hotel Jefferson, where all of the sessions will be held, John W. Studebaker, U. S. Commissioner of Education, will deliver the address of welcome. John M. Carmody, administrator, Federal Works Agency, will speak on "The Importance of Long-Range Planning."

FINANCE

Surveys Education Revenues

Dr. Alvin B. Biscoe of Bucknell University was employed last summer by the Virginia Education Association to make a study of the Virginia tax system for the purpose of indicating ways in which additional revenue might be obtained to finance the educational program.

While by no means exhaustive, Doctor Biscoe's study was sufficiently comprehensive to reveal the possibilities of

increasing Virginia's tax revenues without unduly increasing tax burdens.

Doctor Biscoe proposes to increase revenue chiefly by: (1) increasing the rates on personal incomes in the higher brackets; (2) increasing the corporation income tax from 3 per cent to 4.25 per cent; (3) modifying the license fee schedules on retailers and wholesalers to equalize the burden between the larger and smaller merchants, and (4) taxing tobacco. Doctor Biscoe estimates that these sources will produce from \$5,530,400 to \$6,668,800.

Toledo Schools Reopen

Forty-five thousand Toledo public school children returned to classes January 2 after a vacation that began November 22 when the board of education closed all public schools because of financial difficulties. Night school classes also were resumed.

The closing was ordered to prevent a \$600,000 deficit, already accumulated, from growing to \$1,000,000.

During the enforced vacation school officials have been studying the curriculum to determine what part can be eliminated to cut operating expenses. The new school board, which took office January 1, also will be faced with the problem of whether it shall cut salaries of teachers and maintenance employees.

MEETINGS

Rotary Luncheon

The annual Schoolmasters' Rotary luncheon of the N.E.A. will be held with the St. Louis Rotary Club at the Statler Hotel, Wednesday noon, February 28. Dr. Homer P. Rainey, president of the University of Texas, will be the speaker.

Tickets will be on sale at convention headquarters and at *The NATION'S SCHOOLS'* booth. The sale of tickets will close at 5 p.m. Tuesday.

Dr. E. E. Oberholtzer, superintendent, Houston, Tex., is president of the Schoolmasters' Rotary Club this year, and S. T. Neveln, superintendent at Austin, Minn., is secretary treasurer.

White House Conference

The public school must acquaint the child with the responsibilities and privileges of living in a democracy. There must be education for citizenship, for family life, for health, for leisure, for a vocation and for responsible living. Such education is possible, since good

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teaching and good school administration are "purchasable commodities," as are adequate school facilities.

The foregoing statements are from the report of the research staff of the White House Conference on Children in a Democracy which met in Washington January 18 to 20. "Education Through the School" was one of 11 subjects on which group meetings for discussion were held.

The report continued: "Communities must plan for sound educational progress—safeguarding teacher tenure and salaries; determining need for land, building and capital equipment in

terms of population trends, and securing federal and state financial assistance. Such planning should consider special needs—to extend the school system downward to the kindergarten and pre-school child, to extend it upward to include boys and girls from 18 to 20 who have not yet found a vocational niche and to enlarge the units of local school administration so that opportunity for the farm child no longer will be circumscribed by the one room, one teacher school.

"Comprehensive community planning is the primary means by which the school and other community agen-

cies can relate their efforts. Community use of school facilities is an effective way of relating the services that affect the child. Reciprocal use of records and personnel by schools and other agencies is another means of co-operation."

To Repeat Training School

Following the three day training school held at Walton, N. Y., last summer, which 50 custodians from central schools in Delaware and central New York state attended, another meeting of more than 100 custodians and principals was held at Stamford, N. Y. Considerable enthusiasm for this educational project was expressed and it is hoped that a similar training school will be conducted next year, again under the supervision of Dr. H. H. Linn, superintendent of buildings and grounds, Teachers College, Columbia University.

ADMINISTRATION

Administrative Courtesy

Supt. C. J. Christiansen of Clarion, Iowa, has arranged for a member of the normal training class to be present each evening of the adult education sessions in the Clarion schools to conduct a story and play hour for small children while their parents participate in the adult classes.

Statement of Policies

A statement of principles applicable to the relationship that should exist between the board, executives and faculty of the teacher-training institutions of Illinois was adopted recently by the representative assembly of the Illinois Education Association.

"Election of board members of fine character and intelligence, devoid of partisan and self-interest, devoted to the larger interests of our schools, and cognizant of their proper functions and responsibilities are vital to American education," the statement said in part.

"It is the duty of board members to see that schools are properly managed but board members should not attempt the management. Education of teachers is highly specialized and should be administered by an expert in that field. Positions on college staffs are not to be dispensed as patronage. Contacts between board members and the staff should be through the medium of the president.

"A successful teachers' college administrator should be a successful educator. He should have a strong conviction that the success of a democracy is largely dependent upon its youth for citizenship under public school teach-



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ers who are professionally influenced by democratic ideals; he should have sufficient background and experience in public school work to understand its needs, a well-established reputation among his peers in public education, ability to understand the needs of the staff and appreciation of the interest that the public has in public education."

N.C.W.C. Enrollment Survey

The total enrollment in Catholic elementary schools in the United States in 1938, compared with the total enrollment in the same schools in 1936, showed a decrease of 1.1 per cent, according to figures compiled for the school year 1937-38 by the department of education of the National Catholic Welfare Conference. There were 7916 Catholic elementary schools, staffed by 59,701 teachers and attended by 2,086,071 pupils, according to the survey. The decrease of 1.1 per cent, however, is less than the previous survey, which showed a decrease of 2.3 per cent in 1936.

SAFETY

Fire Reduction Up to Schools

Widespread belief among fire chiefs that reduction of the nation's loss of property and life through fire depends largely upon its schools was shown by a survey reported recently in the magazine, *Fire Engineering*. It was because of failures to follow commonsense safety rules and to utilize safety equipment that fire authorities taking part in the survey believed instruction about "apparently trivial matters which frequently lead to serious loss of property and perhaps loss of life" was a topic that deserved attention from the schools and only could be presented adequately by the schools.

Police Have New Aids

The city of Vincennes, Ind., has 26 policemen who serve without pay.

Day in and day out, they stand at school safety zones during the rush hours, cautioning motorists to go slowly. They are serving on a lifetime basis.

When the superintendent of schools took up the safety problem with the local chief of police, suggesting that policemen might be assigned to special duty in guarding the safety zones, the chief studied the traffic problem and discovered that the city did not have enough policemen to guard all the zones. Another solution was reached.

Designs of life sized policemen holding big "SLO" signs were drawn. These were taken to a local lumber company, placed against a composition

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board and sawed out with a band saw. A local sign painter had charge of painting the policemen. This was done free hand in bright, realistic colors, with a stencil used only for the policeman's badge. The signs were braced at the back with pieces of yellow pine, with a 3 foot base to hold the figure upright.

The policemen are kept at the various schools and put in position during rush hours. Because the material of which they are made is nonwarping, crackproof and splinterproof, the signs are expected to be in use for years to come.

The chief of police is pleased with the new aids. Invariably, he says, motorists spotting the dressy policemen will slow down. In one instance a woman driver was seen to pull up at the side of the life-like figure to ask directions.

V. L. Eikenberry, superintendent of schools, says the "cops" are effective and that the public responds quickly to the warning.

Safety Administration

More than 150 school superintendents, members of boards of education and college administrators from six

Feb. 15-17—Oklahoma Education Association, Oklahoma City.
Feb. 15-17—Oklahoma Association of Negro Teachers, Tulsa.
Feb. 21-24—National Vocational Guidance Association, St. Louis.
Feb. 22-23—National Council of Teachers of Mathematics, St. Louis.
Feb. 22-24—International Council for Exceptional Children, Pittsburgh.
Feb. 24-29—American Association of School Administrators, St. Louis.
Feb. 29-March 1—American Association of Junior Colleges, Columbia, Mo.
March 13-15—South Carolina Education Association, Greenville.
March 14-16—North Carolina Education Association, Raleigh.
March 14-16—Georgia Education Association, Macon.
March 14-16—Alabama Education Association, Birmingham.

eastern states attended an all day conference on problems in school safety administration recently under auspices of the New York University center for safety education.

Speakers at the conference included Dr. James F. Rockett, director of education, Rhode Island; C. J. Strahan, deputy commissioner of education, and Dr. Allen G. Ireland, director of health, safety and physical education, New Jersey; Dr. Charles J. Prohaska,

March 21-23—Tennessee Education Association, Nashville.
March 27-29—National Catholic Educational Association, Kansas City, Mo.
March 30-Apr. 1—Florida Education Association, place undecided.
March 30-April 5—Music Educators National Conference, Los Angeles.
April 3-5—Inland Empire Education Association, Spokane, Wash.
April 17-20—Kentucky Education Association, Louisville.
April 20—Massachusetts Teachers Federation, annual meeting of delegates, Boston.
April 29-May 3—Association for Childhood Education, Milwaukee.
April 29-May 3—American Association for Health, Physical Education and Recreation, Chicago.
June 30-July 4—National Education Association, Milwaukee.

senior supervisor of health and physical education, Connecticut; Dr. R. L. West, president, State Teachers College, Trenton, N. J., and Russell Carson, Glens Falls, N. Y., safety chairman, New York State School Boards Association.

PUBLIC RELATIONS

Rural Visiting Day

To vary the school's annual school exhibit, the faculty at Granite Falls, Minn., decided to include a hobby fair in its recent program. A rural visiting day has been an annual affair of the schools and the school exhibit is an outstanding feature of the day. In addition to the school exhibit, members of the community exhibited their hobbies in the spacious school library.

Preceding the exhibit the public was invited to the school auditorium for a program. Members of the school library club had a display of old and new books and acted as hostesses at a tea served for all visitors.

From the success of this program, it is obvious that a school exhibit is not outmoded, according to Clara L. Johnson, chairman of the exhibit for the faculty.

New Idea for P.-T.A.

For some time the local chapter of the parent-teacher association at Lexington, Ohio, had been struggling to think up an idea that would attract more parents to its meetings. Finally it was announced that all parents or guardians of children attending the village schools would be paid for attendance at the initial meeting of the year. The curiosity aroused by the preliminary announcement created an interest in what would happen at the first meeting, although the "bribe" was only a nominal sum of 10 cents. The attendance now is better than it was the previous year, according to W. A. Wickline, superintendent.

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test his ability and prove his liking for this business in the vacation period this summer. During this time he can earn \$350.00 to \$1000.00 depending upon his ability and the length of his vacation.

On September 3, if he has made good and wants to go ahead in this business, we will give him a contract as manager, and bring him to Chicago at our expense for managerial training.

If you can qualify, write giving complete information. State age, nationality, education, school positions held, sales or business experience if any, whether you are married or single, your home and school telephone numbers, the date your school closes and the date you could start this summer. Enclose a recent snapshot of yourself. Your reply will be kept in strict confidence and a personal interview will be arranged as quickly as possible.

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On the Air During February

The following programs of particular interest to school people are arranged by the Columbia Broadcasting System and the National Broadcasting Company. All programs are listed in Eastern Standard Time. Watch listings for your local outlets.

Daily

12:30-1:15 p.m.—National Farm and Home Hour (NBC Blue).¹

Sunday

10:30 a.m.—March of Games, children's quiz game program, produced and directed by Nila Mack (CBS).

11:30 a.m.-12:00 Noon—Music and American Youth (NBC Red).

12:30-1:00 p.m.—On Your Job, vocational guidance program (NBC Red).

1:00-1:15 p.m.—Pilgrimage in Poetry, broadcasts from homes of famous American poets (NBC Blue).

Feb. 4—Lizette Woodworth Reese, Baltimore.

Feb. 11—Sidney Lanier, Macon, Ga.

Feb. 18—Joel Chandler Harris, Atlanta, Ga.

Feb. 25—Stephen Foster, Bardonia, Ky.

2:00-3:00 p.m.—Great Plays (NBC Blue).

Feb. 4—Arrah-na-Pogue, Boucicault.

Feb. 11—Peer Gynt, Ibsen.

Feb. 18—Pirates of Penzance, Gilbert and Sullivan.

Feb. 25—Pelleas and Melisande, Maeterlinck.

2:00-2:30 p.m.—Democracy in Action, a series of programs designed to show the people of the United States how their federal government operates. Produced in cooperation with the U. S. Office of Education (CBS).

2:30-3:00 p.m.—University of Chicago Round Table (NBC Red).

3:00 p.m.—New York Philharmonic Symphony, John Barbirolli, conducting (CBS).

4:30-5:00 p.m.—The World Is Yours, auspices of Smithsonian Institution (NBC Red).

Monday

9:15 a.m.—American School of the Air. Frontiers of Democracy, produced in cooperation with the Progressive Education Association (CBS).²

2:00-2:30 p.m.—Adventure in Reading. Dramatizations of books and lives of famous authors, showing background of their works, by Helen Walpole (NBC Blue).

4:30 p.m.—Adventures in Science, guests interviewed by Watson Davis, director of Science Service (CBS).

7:15-7:30 p.m.—Science on the March (NBC Blue).

9:30-10:00 p.m.—Youth in Crisis, sponsored by the American Youth Commission (NBC Blue).

10:30-11:00 p.m.—National Radio Forum (NBC Blue).

Tuesday

9:15 a.m.—American School of the Air. Folk Music of America, produced in cooperation with the Archives of American Folk Songs of the Library of Congress, the Music Education Conference and the National Education Association (CBS).²

2:00-2:30 p.m.—Gallant American Women, dramatizations depicting the important part women have played and are playing in the activities of American life; produced in cooperation with the U. S. Office of Education (NBC Blue).

4:15 p.m.—Of Men and Books, reviews of current books and discussions of contemporary authors by Prof. John T. Frederick of Northwestern University (CBS).

9:00 p.m.—Cavalcade of America (NBC Blue).

9:30-10:00 p.m.—Edward Weeks, editor of *Atlantic Monthly*, explores the world of letters, with guest speakers (NBC Blue).

Wednesday

9:15 a.m.—American School of the Air. New Horizons, a chronological history of the lives of explorers and pioneers (CBS).²

Feb. 7—Astronomy.

Feb. 14—American Prehistoric Man.

Feb. 21—Geology.

Feb. 28—Minerology.

2:00-2:15 p.m.—Music for Young Listeners (NBC Blue).

4:15 p.m.—Highways to Health, medical talks for the layman, arranged by the New York Academy of Medicine (CBS).

9:30-10:00 p.m.—NBC Radio Guild (NBC Blue).

10:30-11:00 p.m.—Adventures in Photography, amateur photography program (NBC Blue).

Thursday

9:15 a.m.—American School of the Air. Tales From Far and Near, presenting a selection

of children's books of high literary quality (CBS).²

2:00-2:30 p.m.—Ideas That Came True, dramatizations of historic episodes which trace the development of American ideas and ideals. Dr. Rollo G. Reynolds, narrator (NBC Blue).

4:15 p.m.—Adventures in Science. Interviews with prominent scientists by Watson Davis, director, Science Service (CBS).

4:30-4:55 p.m.—Medicine in the News, sponsored by the American Medical Association (NBC Blue).

9:00-9:30 p.m.—Rochester Philharmonic Orchestra (NBC Blue).

9:30-10:30 p.m.—America's Town Meeting of the Air, George V. Denny, moderator (NBC Blue).

10:30 p.m.—Americans at Work, documentary broadcasts comprising dramatizations of occupations and interviews with people engaged in various vocations (CBS).

Friday

9:15 a.m.—American School of the Air. This Living World, history and current events broadcasts consisting of dramatizations and forums presented at various New York City high schools, with the pupils participating in the actual broadcasting (CBS).²

1:45-2:00 p.m.—General Federation of Women's Clubs, consumers' program (NBC Red).

2:00-3:00 p.m.—NBC Music Appreciation Hour, Dr. Walter Damrosch, conductor and commentator (NBC Blue).²

4:15 p.m.—Men Behind the Stars, legends of the constellations dramatized, Prof. William H. Barton Jr., executive curator, Hayden Planetarium, narrator (CBS).

6:00-6:15 p.m.—Torch of Progress, story of man's progress related by Dr. Edward Howard Griggs (NBC Red).

7:30-8:00 p.m.—Yesterday's Children, series on well-known children's books (NBC Blue).

8:00-8:30 p.m.—Order of Adventurers, experiences of famous scientists and explorers (NBC Blue).

10:30-10:45 p.m.—Story Behind the Headlines, as told by Cesar Saerchinger. Broadcast in cooperation with the American Historical Association (NBC Red).

Saturday

10:15-10:30 a.m.—No School Today, safety program for children (NBC Red).

12:00 Noon—Milestones in the History of Music, presented by the Eastman School of Music under the direction of Dr. Howard Hanson (NBC Red).

12:00-12:25 p.m.—American Education Forum, current series devoted to outstanding experimental colleges in the field of general education with Dr. Grayson Kefauver of Stanford University (NBC Blue).

12:30-1:00 p.m.—Nila Mack's Let's Pretend, dramatic adaptations of fairy tales and original fantasies by the CBS director of children's programs. Roles enacted by cast of junior stock company of the air (CBS).

1:00-2:00 p.m.—What Price America, U. S. Department of Interior conservation program (CBS).

6:30 p.m.—What's Art to Me? Produced in cooperation with the Museum of Modern Art. Dramatizations and quiz programs on art in present day life (CBS).

7:00 p.m.—People's Platform, round table discussion of social, economic and political problems, Lyman Bryson, chairman (CBS).

7:30-8:00 p.m.—Art for Your Sake, dramatization of the lives and works of great painters by Dr. Bernard Myers, cooperation National Art Society (NBC Red).

10:00-11:30 p.m.—NBC Symphony Orchestra, Arturo Toscanini, conductor (NBC Blue).⁴

¹Except Sunday.

²The American School of the Air program will be heard in the Eastern Standard Time Zone only at 9:15 a.m.; in the Central Standard Time Zone at 2:30 p.m.; in the Mountain Standard Time Zone at 1:30 p.m., and in the Pacific Standard Time Zone at times that can be learned from the various local stations.

³NBC Music Appreciation Hour will be heard in the Chicago area over WCFL on Tuesdays from 2:00 to 3:00 p.m. (C.S.T.).

⁴The NBC Symphony will be heard in Chicago from 9:00 to 10:30 p.m. (C.S.T.) over WCFL.

Film Releases

The Eyes—A film for advanced use. Animation and photography show, in detail, the anatomy of the eye; dissection of an animal's eye; microscopic structure of the retina; physiology of the eye; correct use of lenses to overcome defects in focusing; hygiene of the eye. 1 reel. 16 mm., silent. For purchase. Teaching Films Division, Eastman Kodak Company, Rochester, N. Y.

Choosing Your Vocation—Problems a high school boy faces in deciding upon a vocation. 10 minutes. 16 mm., sound. Directed by Dr. Harry D. Kitson of Teachers College, Columbia University. Recommended by Department of Library and Visual Aids, Board of Education, Newark, N. J. For rent or purchase. Erpi Picture Service, 250 West Fifty-Seventh Street, New York.

Studentenweg—One of the earlier Work Camp programs whereby pupils from 15 nations in summer of 1933 made pasture lands and markets more accessible to the natives of a small Swiss locality by building a road. 1 reel. 16 mm., silent. Produced by the Harmon Foundation, 140 Nassau Street, New York.

Make a Wish—This charming musical drama features the voice of the little singing star, Bobby Breen. Much of the action in the film takes place in a boys' summer camp in Maine with a background of tuneful songs by the noted Viennese composer Oscar Straus. 8 reels. 16 mm., sound. For rent or for purchase. Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York.

Films in Review

JERRY PULLS THE STRINGS. 16 mm. Sound. 3 reels. Distributed by American Can Co., 230 Park Avenue, New York.

Skillful handling of puppets (or, more accurately, marionettes) aids in telling the story of coffee. For those who might not sufficiently appreciate puppeteering technic, a dramatic love story serves to provide the *raison d'être* for the main portion of this film. The puppets tell the myth of how man learned to use coffee from seeing goats eat the berries. In another scene we see Ben Johnson in an English inn, sipping coffee with his friends. Later we visit a Brazilian coffee plantation and see how coffee is picked; finally we go with the puppets to a modern proc-

essing and distributing plant in New York. The picture is better at showing the potentialities for whimsy and creative imagination through puppets than at describing the coffee industry. A teachers' guide, edited by Paul G. Edwards, director of visual instruction, Chicago public schools, accompanies the film.—Reviewed by NELL RUTLEDGE, elementary supervisor, State Teachers College, Springfield, Mo.

WHERE MILEAGE BEGINS. 2 reels, 16 mm., sound. Free. Produced by General Motors; distributed by Y. M. C. A. Motion Picture Bureau, 347 Madison Avenue, New York; 19

South La Salle Street, Chicago; 351 Turk Street, San Francisco. Available also in silent version under title "The Power Within," 2 reels, 16 mm., from the same distributors.

Covers in the short space of two reels most of the basic principles underlying the operation of the modern automobile. The first ten minutes present a graphic explanation of the details of the four-stroke cycle, the function and operation of the pistons, connecting rods, crank shaft, valves, spark plugs, clutch, transmission in each of the gear positions, differential and other vital parts of the car. An explanation is

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MEAT SLICERS—There's a U. S. model to fit every size institution.

BREAD SLICER—Slices any thickness 1/8" to 1 1/16". Takes loaves up to 22" long.

ROLL SLICER—Slices all rolls and buns as fast as you can feed them, entirely through or leaves a hinge."

"Delicatizing" requires only a few moments and you'll be truly amazed at results; far superior to any method of tenderizing, dicing or cubing.

Liberal trade allowance on any old-style machine. Send coupon today for full details.

U. S. SLICING MACHINE CO.

World's Best Meat, Bread, Roll Slicers
and Steak Delicators
La Porte, Indiana

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Name

Address

given of the function served by ethyl gasoline. In the second part, the various parts of an automobile engine amazingly fall into place without the aid of hands or machinery, creating a completely assembled motor.

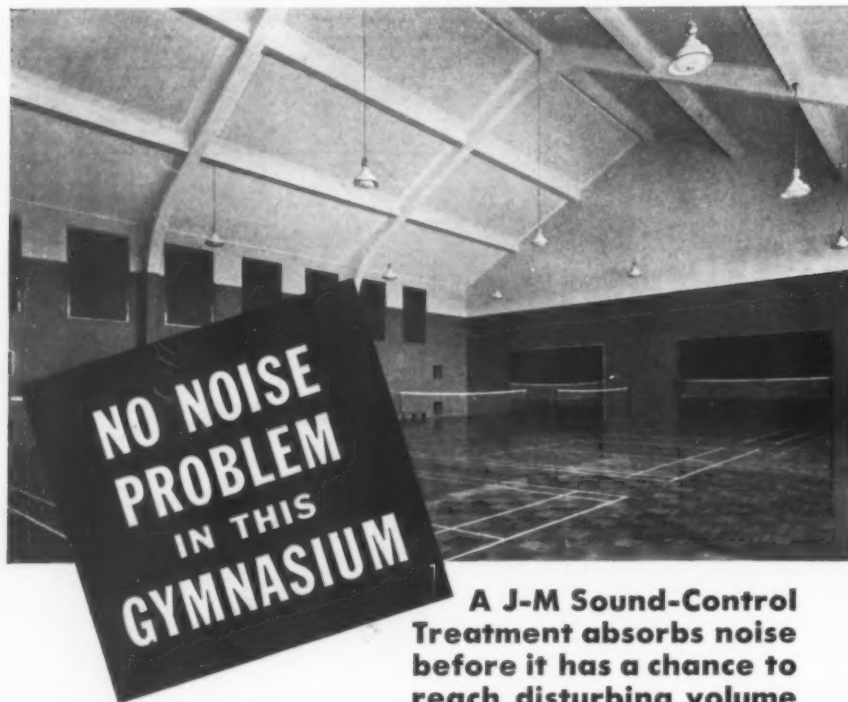
Although the second part is quite entertaining, little if anything can be learned from the first part by a straight showing. The concepts presented are too difficult for any except senior high school grades. For science or vocational classes at this level, however, the excellent and clearly presented graphic diagrams and cut-away sections would be outstanding if they were not so brief

and did not follow each other in so rapid a sequence. By repeated showings of each item, however, this film could well prove an invaluable aid to teachers of these courses.—*Reviewed by the Student Council Films Committee, Teachers College, Columbia University.*

RADIO

Redefer Named Consultant

Frederick L. Redefer, executive secretary of the P.E.A., has been added to the board of consultants of Columbia's "American School of the Air."



THIS beautiful gymnasium in Wellesley College will always be ideal for class instruction because unnecessary noise is eliminated by a Johns-Manville Sound-Control Treatment. As a result, hearing conditions are improved, nerve strain is eliminated and instructions can be heard clearly in all parts of the room.

And this is only one of many locations in Wellesley College where J-M Noise Quieting has proved a valuable aid to teaching. Using J-M methods and materials, J-M Acoustical Engineers have eliminated the noise

problem in classrooms, corridors, dining rooms, swimming pool and recreation room. Not only do these materials provide quiet that helps students study better and learn faster, but they also harmonize perfectly with any type of architectural treatment.

Every school official should investigate the advantages of J-M Sound-Control as a modern aid to education. Our brochure, "Sound-Control for Schools and Universities," gives full details. For your copy, write Johns-Manville, 22 East 40th Street, New York, N. Y.

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Sound-Control Materials and Acoustical-Engineering Service

The P.E.A. cooperates with C.B.S. in presenting "Frontiers of Democracy," the Monday series of the "American School of the Air" dealing with vocational guidance and social study.

"Yesterday's Children"

The National Broadcasting Company on Friday evenings from 7:30 to 8:00 o'clock (E.S.T.) presents a program on well-known children's books, entitled "Yesterday's Children." It presents famous men and women of today who tell about the books that they liked most to read as children. A dramatization of each book is included in the program. Among the books tentatively scheduled for presentation are the following: "Robinson Crusoe," "The Little Lame Prince," "Helen's Babies," "Pandora's Box," "David Copperfield," "The Birds' Christmas Carol" and "Huckleberry Finn."

Cavalcade of America

The "Cavalcade of America," a dramatic radio program in the field of history, science and literature, resumed broadcasting in January. It has borrowed Dr. Frank Monaghan from Yale University for historical consultant on the 1940 series. Carl Carmer, novelist, and Marquis James, biographer, will suggest suitable subjects for the dramas and supervise the preparation of material.

The 1940 series will in its first 12 broadcasts follow a chronological sequence of episodes beginning with the story of Amerigo Vespucci. Other subjects to be dramatized will be "The Luck of the Pilgrims" and an unprejudiced treatment of the character of Benedict Arnold.

RESEARCH

Aids Rural Education

A new Committee on Rural Education with offices at 600 South Michigan Avenue, Chicago, recently has been appointed by the American Country Life Association to foster the interests and cultural improvements of rural people.

This committee is giving initial attention to the Mississippi Valley and to the cultural and spiritual values of life on the land.

In formulating its program for the improvement of rural education, the committee is taking a strong stand on federal aid for rural schools as essential in obtaining an adequate financial basis for the education of rural children. Even more immediate is its concern for effective, life-related teaching in rural schools. To this end the committee is focusing first attention upon rural school supervision and teacher

MODERNIZE your SCHOOL'S SEATING



No. 1900 Movable Desk

The pupils in your older buildings are entitled to modern seating, too. We specialize in seating modernization. Let us help solve your seating problems.

Visit our exhibit in Space B-31-33, American Association of School Administrators, a Department of the National Educational Association.

ST. LOUIS MUNICIPAL AUDITORIUM
St. Louis, Mo. Feb. 24-29, 1940

ARLINGTON SEATING CO.

Manufacturers of All Types of Seating
ARLINGTON HEIGHTS ILLINOIS

PROTECTION ... plus Convenience

FOR SCHOOL LOCKERS

It's good to know that your school's lockers are well-protected . . . by strong Dudley Locks that are mechanically superior . . . tamper-proof!

It's even better to know that you are always "in control of the situation," with masterkeys that provide authorized access in addition to user's combination.

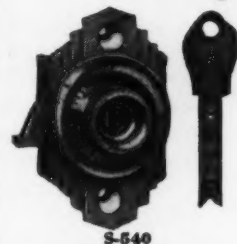
It's best to know that the combinations of Dudley School locker Locks may be changed—easily and in seconds, not minutes.

Investigate Dudley School Locks. Learn all of their advantages—and their economies.

Get Your FREE Folder NOW!

Gives the information you want to solve your locker problems—Dudley specialized service rendered by a staff of more than 70 trained experts in school lock application and use.

You are invited to visit our Exhibit Booth GB at the N. E. A. Convention, St. Louis, Mo.



S-540



P-570

DUDLEY SCHOOL LOCKS

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325 N. Wells St. Dept. D-2 Chicago, Ill.

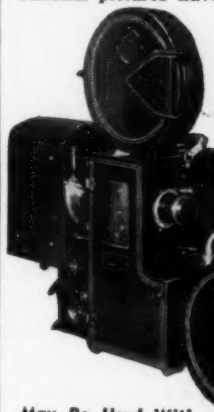


TESTS PROVE ITS SUPERIORITY

HOLMES Sound-on-Film Projectors win out when careful comparisons are made. The more machines set up in competition for demonstration, the more outstanding the quality of sound and picture brilliancy of the Holmes product.

Educators in all parts of America know that a very wide range of educational pictures have been produced on 35mm films.

It is therefore very important that the Holmes 35mm sound-on-film portable projector be carefully considered before purchasing any other kind. Full picture brilliancy and clarity of sound are certain with a Holmes, as precision in moving parts is assurance of superior reproductive values.

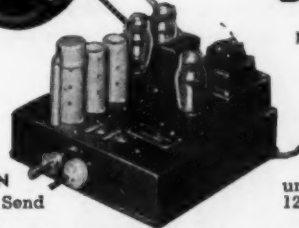


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PORTABLE
35mm
Sound-on-
film
Projector



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DYNAMIC
SPEAKER
COMPACT
LIGHT IN
WEIGHT

May Be Used With
Additional Speakers
for Very Large
Audiences



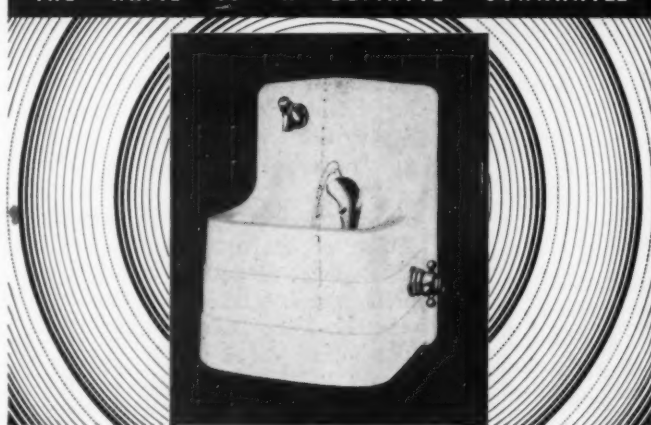
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arranged upon request. Send
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The Halsey Taylor name on drinking fountains is more than a mark of identity . . . it is a definite guarantee of faultless design, modern styling, trouble-proof service! Play safe . . . specify Halsey Taylor.

THE HALSEY W. TAYLOR CO.
WARREN, OHIO

HALSEY TAYLOR
Drinking Fountains

education, advocating practical demonstrations in both fields.

The committee held its first meeting in March 1939 and has held three subsequent meetings. It is now fully organized under the following membership: Roscoe Pulliam, chairman, president of the State Teachers College, Carbondale, Ill.; Agnes Samuelson, vice chairman, secretary of the Iowa State Teachers' Association; Mabel Carney, Teachers College, Columbia University; Leo M. Favrot, General Education Board (retired), Baton Rouge, La.; Lowry Nelson, University of Minnesota; Floyd W. Reeves, National Youth

Commission; Mrs. Raymond Sayre, State Farm Bureau, Ackworth, Iowa; Maurice F. Seay, University of Kentucky, Lexington, and J. F. Waddell, Wisconsin State Department of Education.

Miss Iman E. Schatzmann, who has an Iowa background and has also been educational investigator for the International Bureau of Education and research assistant for the International Institute of Agriculture, Rome, Italy, has been appointed executive secretary.

For the present the committee is being supported by a grant from the Farm Foundation of Chicago.

MISCELLANEOUS

All-American Youth Orchestra

The 109 young musicians who are to make up Leopold Stokowski's all-American youth orchestra, which will tour South and Central America, are now being recruited through the state offices of the National Youth Administration.

The tour is being planned with the cooperation of the Pan-American Union. Mr. Stokowski has said that a special ship may be chartered for the trip.

Preliminary auditions will be arranged by Mr. Stokowski and the N.Y.A. in six or eight central cities. These will close March 15. Transportation to New York or some other central point will be arranged for those who are recommended following the regional auditions. Mr. Stokowski will hold final auditions in April.

Fifty-one state offices of the N.Y.A. are being directed to receive and to pass on preliminary applications. Both N.Y.A. workers and other young people under 25 will be eligible. Experience and some indication of high ability will be primary requirements. Applications will be received up to February 1. The tryouts will be open to all young people, irrespective of sex, color or race.

Refuses Religious Poll

The U. S. Census Bureau recently turned down a request by certain religious groups that it query the American people on their belief or disbelief in God, on the ground that a government agency has no right to probe into the religious beliefs of its people. The bureau also rejected a request that persons be asked to name their church preference if they are not a member of any religious body. It conducted a census of church affiliations in 1936 but made no attempt to find the church preference of the nonmembers or whether or not they believed in God. The bureau had no choice but to refuse, for the Bill of Rights explicitly guarantees complete religious freedom with no influence or interference from government.

Commemorative Stamps

First day sale dates and colors for the five stamps of the Famous Americans series honoring educators have been announced by Postmaster General James A. Farley.

The first day sale of the 1 cent, green Horace Mann stamp will be on March 14 at Boston. The same day the Mark Hopkins (2 cent, red) stamp will go on sale at Williamstown, Mass. On March 28 the Charles W. Eliot

BECAUSE IT'S
**EXTREMELY
ECONOMICAL***
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IN 4100 SCHOOLS



*Dispensed from the Sana-Lather Dispenser in foam form—90% air, 9% water, and only 1% soap.

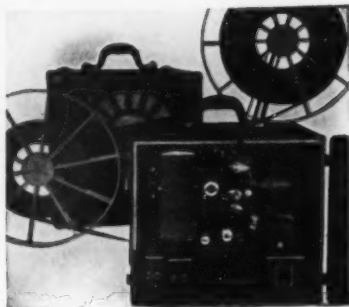
DILUTE Liqua-San "C"—40% concentrated—with 3 or 4 parts water . . . dispense it from the Sana-Lather in economical, thorough-cleansing foam—incidentally, soap in its most gentle form—and you have the reasons why this amazing combination brings savings that no other soap dispensing system can match.

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LIQUA-SAN "C" LIQUID TOILET SOAP
SANA-LATHER FOAM TYPE SOAP DISPENSER

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Low in cost, Universal 16MM Sound Projectors offer you all of the important new features. Four models. For all purposes. Simple to operate. Economical to maintain. Licensed. Guaranteed.



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- 12" HEAVY DUTY SPEAKERS
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- 3rd INTENSO CONDENSER LENS
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- REELS TO 16"
- REVERSE ACTION
- STILL PICTURE CLUTCH
- CENTRAL OILING
- TURBO MAXIMUM COOLING
- REAR SHUTTER
- LOW PRICE ● FOR SOUND OR SILENT FILMS
- 2 CLAW INTERMIT. ACTION
- FOR CLASSROOM OR AUDITORIUM
- PERMANENT CARRYING CASES
- FOR PUBLIC ADDRESS OR PHONO.
- LICENSED — WARRANTY

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SCREEN

**To Fill
Every
Projection
Requirement**

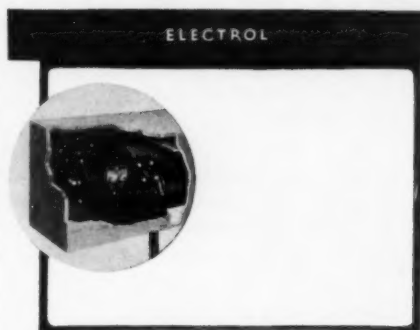
Where portability is important, the Da-Lite Challenger consisting of Da-Lite Glass-Beaded fabric, metal case and tripod provides utmost convenience. It can be set up anywhere in 15 seconds yet folds compactly for carrying from room to room wherever a projection screen is needed. The glass-beaded surface reflects brilliant clear pictures without sparkling or glare. The Challenger is the only screen with square tubing in the tripod to keep the entire picture in perfect alignment. 12 sizes from 30" x 40" to 70" x 94" inclusive from \$12.50 up.

DA-LITE MODEL B

This map-type screen is mounted in a dust-proof metal case to hang on the wall or from Da-Lite Super Tripods. 12 sizes from 22" x 30" to 63" x 84" from \$7.50 up. Slightly higher on Pacific Coast.



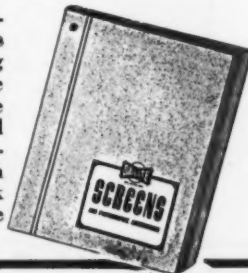
DA-LITE ELECTROL



This electrically operated model is the most convenient of all screens for auditoriums and large classrooms. Its motor drive, operated by a remote control switch placed anywhere desired unrolls and re-rolls the screen as desired. The

screen stops automatically when completely lowered or rewound. Because the screen is operated at a constant speed there is never any strain on the fabric. Available with Da-Lite Glass-Beaded or Mat White surface in a broad range of sizes up to 20' x 20' inclusive.

For 31 years, Da-Lite has been anticipating screen requirements with equipment of outstanding quality. As a result, the Da-Lite line is the most complete on the market with surfaces, sizes and mountings to meet every requirement. All are fully described in the 48 page Da-Lite catalog. Ask your supplier for a copy or write direct.



DA-LITE SCREEN COMPANY, INC.

Dept. 2TNS, 2723 No. Crawford Ave., Chicago, Ill.

(3 cent, purple) stamp will be placed on sale at Cambridge, Mass. The 5 cent, blue stamp honoring Frances E. Willard will be placed on sale at Evanston, Ill., March 28. On April 7 the 10 cent, brown stamp honoring Booker T. Washington will be sold at Tuskegee Institute, Ala.

NAMES IN NEWS

Superintendents

S. T. NEVELN has been reelected superintendent at Austin, Minn., for a three year term. Since 1921, when elected superintendent, the Austin schools have more than doubled in enrollment. During 1940 the school district will complete a school building program totaling \$1,350,000. A junior college will be opened in September.

H. H. ROBINSON, high school principal at Augusta, Kan., has been chosen superintendent of Augusta schools to succeed J. W. MURPHY next fall. C. W. GUSTAFSON, teacher of commercial subjects, will become principal.

CHARLES RAYMOND THIBADEAU has resigned his post as superintendent of schools at Newburyport, Mass., to become superintendent at Weymouth, Mass. He succeeds PARKER T. PEAR-

SON, superintendent at Weymouth for thirty years.

GEORGE W. GRILL, assistant superintendent, Lakewood, Ohio, has resigned his position to accept the superintendency of the Cleveland Clinic. Mr. Grill has been associated with the Lakewood schools for the last twenty years, seven years as clerk-treasurer of the school board and the last thirteen years as assistant superintendent.

KENNETH L. SHERMAN, principal of the Andover Junior High School, Andover, Mass., for the last four years, was elected superintendent at Andover recently. He succeeds the late HENRY C. SANBORN.

LEIGH M. LOTT recently was reappointed superintendent at Bridgeton, N. J., for another one year term. He has been head of Bridgeton schools for six years.

Principals

THOMAS EVANS, Phoenixville, Pa., has been named principal of Royersford Junior High School, West Chester, Pa., to succeed JOHN R. HARTMAN, who last month was named supervising principal, succeeding A. J. ENGLISH.

ELEANOR HASTINGS McCORMACK, head of a campus house at Radcliffe College, has been named principal of

Holland Hall, private girls' school at Tulsa, Okla.

J. GERALD LOUGHLIN, vice principal in charge of the John R. Harding School, Elmira, N. Y., was recently appointed principal of the new George Washington School, Elmira. Three other principals were transferred as a part of a general school reorganization plan that specifically affects four junior high schools that opened with the beginning of the school term January 29. FREDERICK J. LEVERICH, principal of the Beecher School, became principal of the Parley Coburn School. FRANK J. BARTLETT, School 11 principal and former School 5 principal, was appointed principal of the Beecher School. MARY CONLEY, principal of Coburn School, was named principal of School 11.

DAVID LONG, for ten years principal of Plattsburg High School, Plattsburg, Ohio, has been named principal of Reid Junior High School, Springfield, Ohio, succeeding ARNOLD DILLON, who has become Springfield's new city manager.

C. R. BOWMAN is the new principal of Red Bank High School, Claudsville, Va.

ELIZABETH SCHNEUCKER has retired as principal of Horace Mann School, Schenectady, N. Y., after more than

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Equipment**

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In advertising to educators, Webster-Chicago's object is to encourage **the most thorough investigation.**

Webster-Chicago has invested heavily in **engineering development**—the attainment of maximum fidelity, convenience, and **continuing dependability.**

Consult, as you have the opportunity, any independent engineer who has inspected the busy Webster-Chicago plants and laboratories. He will verify the technical and quality standards that are traditional with this organization.

That is why the burden of Webster-Chicago's message is simply **investigate before you buy.**

Your inquiry of us—as brief or as detailed as you desire—will have (without obligation) the attention of sound engineers of broad experience. Catalog No. 439, free on request, describes all models. The Webster Co., Sec. F-24, 5622 Bloomingdale Ave., Chicago.

Good sound **need not be expensive.** The only worthwhile price quotation is on **the system installed complete, ready to operate.** So compared, the finest Webster-Chicago installation will usually be found to cost little more than a substitute "built to a price."



Webster-Chicago Sound Systems are tastefully housed in convenient and durable cabinets. The Webster-Chicago Automatic Record Changer is found also in phonographs of leading American makes.



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**PRACTICALLY
EFFORTLESS**



2" x 2" slides are inserted and removed entirely from the top in the new Model DD.

**TO PROJECT
MINIATURES**
with the NEW 150
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**SVE Tri-Purpose
PROJECTOR**

The simplicity of the SVE Tri-Purpose Projector Model DD makes this equipment ideal for classroom use. This latest addition to the SVE line projects single or double frame film strips as well as 2" x 2" glass slides. It is one of many styles of SVE Projectors ranging in capacity from 50 to 300 watts. Write for catalog.

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Dept. 2TNS 100 E. Ohio St. Chicago, Ill.

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CLASSROOMS
CLEANER, HEALTHIER
with DRAPER
Sight-Saving
SHADES**

**THEY DEMOUNT
INSTANTLY
CAN BE KEPT
CLEAN**

VISIT US
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vention in St. Louis,
February 24-29.
Booth D-37.

NO trouble at all to have fresh, clean shades . . . sparkling windows . . . more sanitary classrooms . . . when Draper Sight-Saving Shades of washable Dratex Cloth and Draper Patented Demountable Fixtures are used. Just pull hinge pin . . . lift off pulleys . . . and shades are ready for cleaning . . . every inch of window exposed for washing. So easy . . . so quick . . . so typical of Draper Shades' quietly efficient operation and many extra advantages. Economical special fixtures for demountable attachment of shades to steel sash.

Write today for complete information on washable, demountable Draper Sight-Saving Shades. Address Dept NS2

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*Eleven Correct Sizes—
One for Every Service*

- LIGHT
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That's all—but, of course, that's all there is to the perfect tray—and CAFATRAYS have every one of these characteristics.

Ask your equipment dealer—and
demand genuine CAFATRAYS

CHELSEA PRODUCTS, 281 11th AVE., NEW YORK

**America's Finest
PLAYGROUND
EQUIPMENT**

LOUDEN

In Praise Winning Use All Over the World

THERE'S no tougher job than that which playground equipment must do—resisting rust, wear, stress and strain—day and night in all kinds of weather. That's why it's so important that you buy carefully. LOUDEN equipment is honor-built from only highest grade materials by master draftsmen; it is designed by experienced engineers who know what playground equipment must be; it is backed by the 72-year-old reputation for quality manufacturing and fair-dealing behind the J. E. Porter Corporation. Yet—LOUDEN equipment costs the least because it outwears ordinary equipment by far.

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VENTION at St. Louis,
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72 Years Old

THE J. E. PORTER CORPORATION
OTTAWA ILLINOIS

Manufacturers of the famous "Louden," "Chicago" and "Spalding" lines of playground, gymnasium and swimming pool equipment; and of "Jungle Gym" Climbing Structures.

fifty-one years in the teaching profession.

CAPT. L. G. HOSINGTON recently was named principal of Hill Military Academy, Portland, Ore., replacing E. W. NOVACK, who resigned.

JOHN W. PARK has been appointed principal of Philip Schuyler High School, Albany, N. Y.

WALTER WHITE was recently elected principal of the high school at Pearsall, Tex., to succeed A. B. WILLIAMSON, resigned.

In the Colleges

DR. JOSEPH F. NOONAN has been elected president of East Stroudsburg State Teachers College, East Stroudsburg, Pa. Doctor Noonan resigned last June as head of Mansfield State Teachers College, Mansfield, Pa.

DR. A. E. JOYAL, head of the department of education at the University of Denver, has resigned, effective in June, to accept a professorship in education at the University of Maryland.

HOWARD LANDIS BEVIS, professor of law and government at Harvard University and a former judge of the Ohio Supreme Court, has been elected president of Ohio State University. He is 54 years old.

O. C. SCHWIERING, University of Wyoming faculty member, has been

named dean of the college of education, succeeding the late C. R. MAXWELL.

Miscellaneous

PROF. VERNE C. FRYKLUND of Wayne University, Detroit, has been elected president of the National Association of Industrial Teacher Trainees, a group of 500 educators interested in teacher training for industrial arts.

J. SINCLAIR BROWN of Salem, Va., was elected president of the Virginia State Board of Education recently, succeeding the late E. LEE TRINKLE of Roanoke, Va.

RAY ROBERTSON, superintendent at Cody, Wyo., has been named commissioner of education for Wyoming.

DEAN MARJORIE NICOLSON of Smith College is slated to become the first woman president of the Phi Beta Kappa society, succeeding Dr. FRANK P. GRAVES, New York State commissioner of education. Nominated on the slate with Dean Nicolson to serve as vice president during the three year term, 1940-43, is JOHN KIRKLAND CLARK, member of the New York State board of law examiners. Nomination, for all practical purposes, means election at the twentieth triennial meeting of the Phi Beta Kappa council to be held in San Francisco next September.

Deaths

DR. MARION ERNEST TOWNSEND, president of New Jersey State Teachers College, Newark, died recently at the age of 50 years. Following many years as supervising principal and superintendent in the schools of New York and New Jersey, Doctor Townsend was made assistant commissioner of education in New Jersey in 1928. Since 1932 he had been associated with the administration of student personnel service in teacher training institutions. He was identified prominently with many leading educational activities.

MARTIN M. HIHN, director of night schools, attendance and Americanization in the Baltimore public school system, died recently of heart attack. He was 52 years old. Mr. Hihn entered the Baltimore system as an elementary teacher in 1906, later becoming principal of schools in the eastern section of the city. He was assigned to his final post in 1927.

JAMES F. DAY, former principal of Salem High School, Salem, Mass., since 1935, died recently of an illness that forced him to retire last year.

MRS. ELSIE MONTGOMERY SMITH, 61, principal of Henry W. Yates and Saunders schools, Omaha, Neb., died recently.

YALE
COMBINATION LOCKS
FOR
SCHOOL LOCKERS

THE SAVINGS EFFECTED BY
LOW PRICE NEVER EQUALS
THE DISAPPOINTMENT OF
LOW QUALITY

SEE THE ACTUAL MAKING
Of A Yale Combination Locker Lock
VISIT
YALE BOOTHS B25 and 27
at the
National Education Association Convention
St. Louis
FEB. 24 - 27

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STAMFORD, CONN.



- **The Aristocrat (shown)**
Truly the Aristocrat of Chairs
- **The Mercury**
A Streamlined Edition of the Chair That Had Made History
- **The Ideal Challenger**
An Unsurpassed Value Which Challenges All Competition

Write for literature describing exclusive features of the entire line. There's an Ideal Chair to Fit Every Budget . . . built to excel, not just to compete.



IDEAL Seating Company
GRAND RAPIDS • MICHIGAN

THE TRAVEL TREND *is Toward*



A location in the center of the downtown district, with shops and amusements nearby, attracts travelers to this fine hotel—where they invariably enjoy the comfortable accommodations, the fine food in the Coffee Shop, and the superior service. Garage service. All rates reasonable.

WITHOUT BATH \$1.50 WITH BATH \$2.00
UP BATH \$2.00

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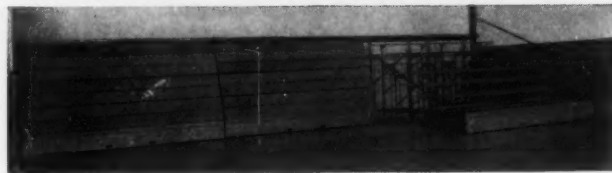
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ANDREWS HOTEL

A. W. STADE
Manager

in

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Horn Folding Bleachers



... Can You Afford Built-In Bleachers?

Let us prove to you the false economy of using permanent built-in bleachers.

No matter how large or small your gymnasium may be you can have greater seating accommodations with folding bleachers than any other method of seating. Write for engineering data and costs of Horn Folding Bleachers for your gym. You will be pleasantly surprised.

HORN MANUFACTURING CO.
DEPT. N-2, FORT DODGE, IOWA
Offices From Coast to Coast
FOLDING PARTITIONS AND FOLDING BLEACHERS

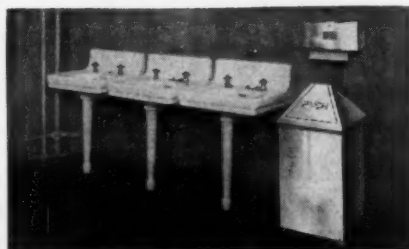


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INSTRUCTION

Principal Leads Forum

Principal J. Edwin Howe of Fulton and Carpenter schools, Evansville, Ind., finds time during each busy week personally to lead a homeroom discussion in the eighth grades and to give a period every other week to the seventh grades, according to the *Evansville Schools Bulletin*.

The pupils select the subject or project they wish to discuss. Generally the subjects have some connection with citizenship, social conduct, leisure time interests, high school opportunities or making a living.

An informal atmosphere is evident. Pupils feel that this is their period and make the most of it. Through this free interchange of opinion guidance is made natural and easy.

Make Believe Broadcasts

Station LGH "broadcasts" daily in the third grade at Linwood School, Cincinnati. The letters LGH stand for the Linwood Good Health station.

The broadcast is essentially a language activity.

The programs start with the announcer, who is a different child each day, announcing the station call letters

and the correct time into a wooden microphone. The class softly hums a health song as the theme of the program.

The announcer invites various members of the class to the microphone, and they broadcast accounts of their health activities, such as outdoor play, drinking milk and early bedtime.

Following this the announcer repeats the call letters, again presents the correct time and the children hum the health song as Station LGH fades from the air.

21 States Say "No"

During 1939, 21 state legislatures entertained bills that would curtail employment of married women. Most of them were aimed especially at married women teachers. All were defeated.

PUBLICATIONS

To Copyright Teacher Tests

To end a petty "racket," the New York City board of education has announced that it will copyright all of its examinations and publish them in booklet form.

Every year from 20,000 to 30,000 persons apply for teaching licenses. Applicants who desire copies of former

examinations may obtain them only from private individuals or from special publishing houses. They are sold at exorbitant prices, according to Dr. William A. Hannig, chairman of the board of examiners.

Under the board's plan, a booklet of 15 tests will cost 20 or 25 cents. Tests will be included for the last three years to give a fairly comprehensive idea of the type of questions asked in each subject.

"There is a legitimate demand for information as to the kind of examination that is given by the board of examiners," Doctor Hannig explained. "While publication of these booklets does not commit us to give the same kind of examination, it will give the candidates a feeling of definiteness that will replace the dread of a vague unknown."

Consumer Quiz

The consumer quiz, a teaching aid issued free to teacher members of Consumers Union, recently presented several features for classroom laboratory testing. They were tests for renovated butter, for artificial coloring in butter and for starch in sausage. Other teaching aids included in the quiz are a project on the cost of medical care and multiple choice and true false questions on consumer problems.



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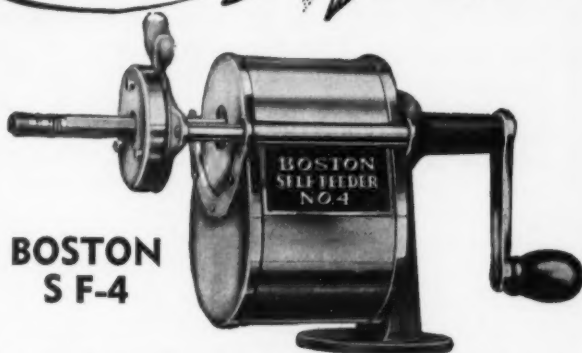
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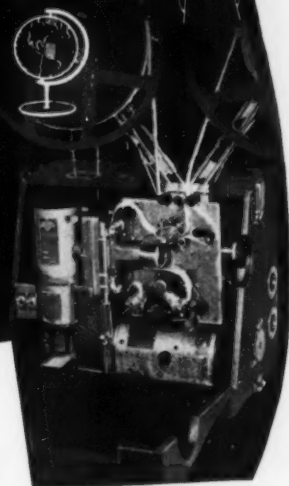
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THE BOOKSHELF

TOWARD PROFICIENT READING. By James Alexander Hamilton. Claremont, Calif.: Saunders Press, 1939. Pp. ix+152.

Designed for mature individuals who desire to develop proficiency in silent reading.

INTERCOLLEGIATE DEBATES. *Year Book of College Debating.* Edited by Egbert Ray Nichols. New York: Noble & Noble, 1939. \$2.50. Pp. x+322.

All the important intercollegiate debates of the past year are presented in full for the benefit of those interested in this activity. Good reference book for secondary schools.

DEBTS—GOOD OR BAD? By Maxwell S. Stewart. *Public Affairs Pamphlet.* New York: Public Affairs Committee, Inc., 1939. Pp. 32. \$0.10 (Paper Cover).

A warning against the deceptive ease of going into debt during a boom, such as occurred during and after the last war.

VALUE AND DISTRIBUTION. *Some Leading Principles of Economic Science.* By Lewis H. Haney. New York:

D. Appleton-Century Company, 1939. Pp. xvii+734. \$4.

Presentation of value and distribution from the standpoint of equilibrium economics which, because of its fundamental theory, is essentially a doctrine of the center. A normal evolution in the broad mainstream of classical economics, its theories may not be palatable to either the collectivist or the more or less rugged individualist.

THE SECONDARY SCHOOL. By Charles Watters Odell. Champaign, Ill.: The Garrard Press, 1939. Pp. viii+606. \$3.

Analysis of American secondary school problems and practices with a brief section on secondary education in other countries.

BACK TO SELF-RELIANCE. By Matthew N. Chappell. New York: Whittlesey House, McGraw-Hill Book Company, Inc., 1939. Pp. ix+239. \$2.

An arresting book based upon sound psychological theory in which the author points out the dangers of current paternalism and the individual immaturity it generates and suggests

possible means for a return, by a different road, to the self-reliance of the past, considered an outstanding characteristic of the forefathers.

HOW TO BUY, SELL AND BURN COAL. By Thomas A. Marsh. Chicago: T. A. Marsh, 5625 Kenwood Avenue, 1939. Pp. 97. \$1 (Paper Cover).

This discussion of coal as a fuel should be of value to the institutional as well as the individual consumer.

EDUCATION AND THE NEW REALISM. By Frederick S. Breed. New York: The Macmillan Company, 1939. Pp. xx+237. \$2.

The realist meets the pragmatist in an incisive way which causes the functionalist to declare that both points of view have considerable merit, if considered in harmonic balance rather than as extreme or single views. Worth reading.

Just Off the Press

CIVIL SERVICE PROCEDURES FOR SOCIAL WORK POSITIONS. By Florence Booth. Chicago: American Public Welfare Association, 1939. Pp. 78. (Paper Cover.)

READING. Grades One to Six. V. D. Bain, Editor. Salem, Ore.: State Department of Public Instruction, Rex Putnam, superintendent, 1939. Pp. 261. (Paper Cover.)

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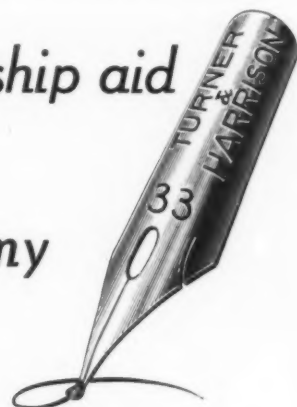
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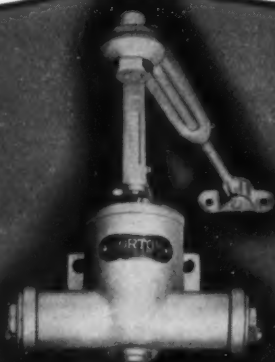
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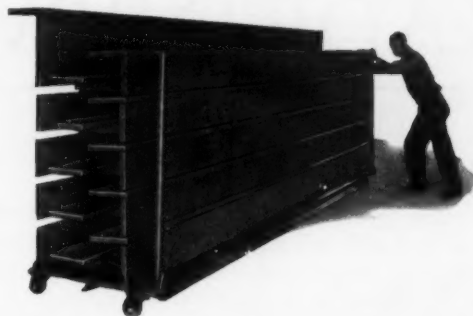
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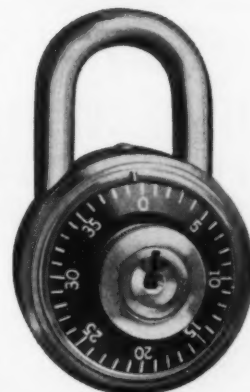
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TRADE NEWS

Offspring of Basketball

Goal-Hi, a new game adapted from basketball, is making its formal bow before educators at the meeting of the A.A.S.A. in St. Louis this month. Developed by Dr. Forrest C. Allen, director of physical education and varsity basketball coach at the University of Kansas, it is excellent as a lead-up game to the sport of basketball for children of junior high school age and also as a year-round conditioning game for high school and university basketball players. It is equally safe for small children. The game is being sponsored by the Fred Medart Manufacturing Company of St. Louis.

Prepared for 50,000 Requests

In issuing its new revised "Handbook of Building Maintenance" for building engineers, the Flexrock Company, 23rd and Manning Streets, Philadelphia, has announced that it is prepared for requests for 50,000 copies. The June issue of this book netted 30,000 requests for copies between June and December. Some of

the best features used in the last edition are reprinted in the current book.

Schoolmaster Model

International Business Machines Corporation has announced the introduction of a new No. 5 Schoolmaster sound amplifying and distributing control unit, especially designed to furnish centralized sound control for any school of 40 rooms or less.

The unit provides the feature of two way communication between classrooms and central office and permits the reception and redistribution of broadcast programs and the distribution of programs from phonograph records played by the unit.

Portable Folding Stage

Imagine stacking a stage for a 120 piece band in a space of only 4 by 8 feet. The height of all the units is only a little more than 6 feet. The Mitchell Manufacturing Company of Milwaukee has produced a portable stage the tubular steel understructure of which is folded flat into a single

unit only 2½ inches thick. The large stage is made of single folding units, the tops of which are made of heavy plywood with banded edges.

Architectural Competition

A competition for the design of an ideal building in which to house a 1000 watt radio broadcasting transmitter has been launched by the Beaux Arts Institute of Design. It is open to students of all architectural schools and ateliers in the country. The purpose of the competition, which is sponsored by the Western Electric Company, is the stimulation of interest in the design of specialized structures for radio broadcasting purposes. Three cash prizes of \$250, \$100 and \$50 are offered. The competition closes May 1, at which time all entries must be filed at the institute's headquarters, 304 East Forty-Fourth Street, New York.

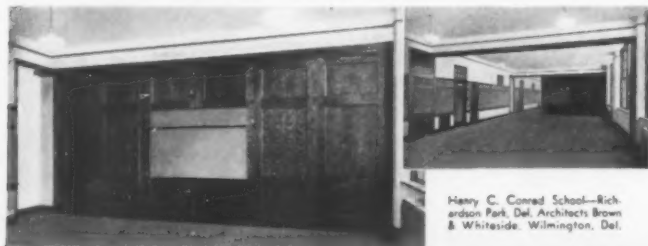
Personalities in the Trade

Philip Hooker has been appointed manager of the dealer service division of the Bell & Howell Company, Chicago. J. Lawrence Goodnow has been appointed manager of the personal equipment division of that company. Leaving the Chicago office, Carl Schreyer becomes Bell & Howell's district manager for the southeastern area.



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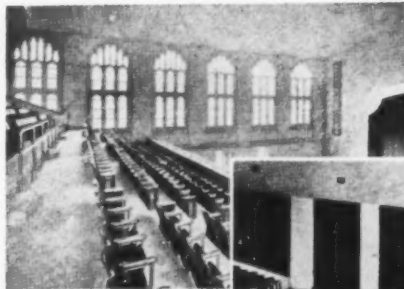
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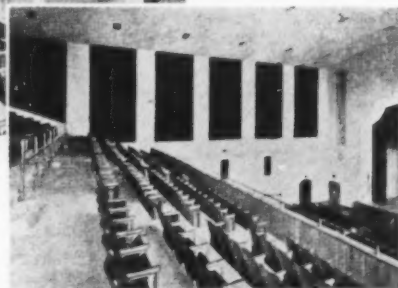
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School Executives and Architects are invited to visit the offices of The NATION'S SCHOOLS in Room 1221 of the Architects Building. A special conference room has been arranged for any convenience they might wish. The many exhibits and features of the building will be introduced to them if desired.

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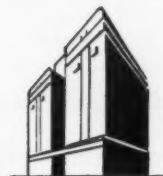
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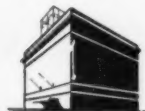
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A.A.S.A. Program

(Continued from page 27)

tion professor, University of Wisconsin.

Address: "A Proposed Training Program for Business Officials and Suggested Prerequisites for Service in This Field," Frank W. Hart, professor of school administration, University of California.

Division 3, Group C: Adequate Public School Support for Small Schools.

Presiding: J. R. Holmes, superintendent, Muskogee, Okla.

Address: "On the Part of the Local Community," Knute O. Broady, Teachers College, University of Nebraska.

Address: "On the Part of the State and Nation," J. M. Sellers, superintendent, Hobart, Ind.

Division 4, Group C: "The Evaluation of Education End-Products at the Secondary School Level."

Presiding: John L. Bracken, superintendent, Clayton, Mo.

Address: "What Should Be the End-Products of Secondary Education?" W. W. Haggard, president, Western Washington College of Education.

Address: "The End-Products of Secondary Education in Terms of the New York Regents' Inquiry Report,"

H. Claude Hardy, superintendent, White Plains, N. Y.

Discussion Leaders: DeWitt S. Morgan, superintendent, Indianapolis, and A. Edson Smith, principal, Community High School, Anna, Ill.

Division 5, Group C: "Placement, the Final Step in Occupational Adjustment."

Presiding: Willis A. Sutton, superintendent, Atlanta, Ga.

Address: "Our Responsibilities for Placement of Youth in Jobs," Worth McClure, superintendent, Seattle.

Address: "Experiments in Placement," Edwin A. Lee, Teachers College, Columbia University.

Division 6, Group C: "Opportunities Provided for Exceptional Children."

Presiding: Hollis A. Moore, superintendent, Kerrville, Tex.

Address: "Providing for Rapid Learners Within Regular Class Groups," Guy T. Buswell, professor of educational psychology, University of Chicago.

Address: "Opportunity Classes for Gifted Children," Clarence T. Gray, professor of educational psychology, University of Texas.

Discussion Leaders: Paul S. Amidon, superintendent, St. Paul, Minn., and B. C. Berg, superintendent, Newton, Iowa.

8:00 p. m.

Program: Stage revue, "The Purposes of Education."

Director: E. W. Jacobsen, superintendent, Oakland, Calif.

Cast: Provided by school systems of Clayton, University City and Webster Groves, Mo.

Thursday, February 29, 9:00 a. m.

Program: Second performance of "The Purposes of Education."

Place: Opera House, Municipal Auditorium.

2:15 p. m.

Topic: "Keeping the United States Out of War."

Speaker: Dean William F. Russell of Teachers College, Columbia University.

Speaker: C. Wayland Brooks, attorney, Chicago.

Discussion: Jury panel.

Report: Board of Tellers, H. Claude Hardy, superintendent, White Plains, N. Y.

8:00 p. m.

Radio Broadcast: America's Town Meeting of the Air, ordinarily presented from New York City, will be broadcast for the convention from the stage of the auditorium.

Moderator: George V. Denny Jr., president, Town Hall, New York.

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CONTENTS

For March 1940

Side Glances—

Looking Forward 15

THE EDITOR quotes the President's statement in behalf of teaching by reason; pays tribute to Carroll R. Reed; agrees with the President's response to requests for further federal aid to education; asks consideration of convention superintendents' wives in future programs, and comments on other timely subjects.

Four Criteria for Modern Elementary School Plants 18

WILL E. WILEY enumerates some principles governing the school plant that is adapted to progressive educational methods and tells how old structures were remodeled for the new educational program at Whittier, Calif.

•School Plant Needs 21

ARTHUR B. MOEHLMAN would forestall any attempts to divert funds for school building purposes to emergency usage in event of a war crisis through a balanced educational plan.

•Youth in Community Activities 23

SAMUEL EVERETT reviews the Educational Policies Commission's study of citizenship education in secondary schools.

•What Is Right With the Schools 24

Two papers that express the 1940 A.A.S.A. convention theme, "Progress in Elementary Schools" by EDGAR G. DOUDNA and "Progress in Secondary Schools" by F. T. SPAULDING.

•"No Brand New Safety Illiterates" 27

Safety Education is the topic of the A.A.S.A. Yearbook for 1940 abstracted by HENRY H. HILL, chairman of the yearbook committee.

Oregon State's Nursery School 29

Architectural description of a new nursery school which serves as a laboratory for students in the school of home economics at Oregon State College by AVA B. MILAM.

•We Face the Forties 45

School support will not be slackened, in spite of the various social welfare activities of the government, believes PAUL V. MCNUTT.

•What Schools Can Learn From Federal Youth Agencies 47

CHARLES H. JUDD asks educators to cooperate with federal agencies in handling the youth problem and thereby gain advantage of the experience that these agencies have accumulated.

•The Superintendent's Job 49

Some significant facts gathered by the A.A.S.A. Committee on the Certification of Superintendents of Schools by OTTO W. HAISLEY, chairman.

•From papers presented at the A.A.S.A. convention in St. Louis, February 24 to 29.

THE yearly SOS calls for commencement ideas have begun to sound. Because an entire portfolio was devoted to graduating exercises last year, The Editors deemed it not wise to give so much emphasis to the subject in 1940. But readers are apparently insatiable regarding these sacred rites of spring, judging from our mounting correspondence.

In April we shall present an article on the use of pupil commencement speakers as interpreters of the school. In May will appear a description of another type of commencement program. That will be all for this year. Sorry!

THE clamor for another portfolio on summer renovation arose some months ago and, to silence further inquiries, we now announce that the ayes have it. You get your summer renovation material next month, in ample time to do some careful planning of the summer work schedules.

IN THE April issue also there will be published an exposé of those correspondence schools and trade institutes that exploit youth by the thousands with promises of employment in industry after taking their courses.

The secretary of the American Society of Refrigerating Engineers, David L. Fiske, is so incensed over the false hopes held out for "air conditioning" jobs and similar technical openings that he is eager to reach principals, vocational guidance men and teachers through *The Nation's Schools*. Some school folk, he finds, are passing on the bad vocational advice they hear over the radio or through reading local newspaper advertisements.

Published monthly by The NATION'S SCHOOLS PUBLISHING Co., Inc., 919 North Michigan, Chicago, and 101 Park Avenue, New York. Otho F. Ball, president; Raymond P. Sloan, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. Yearly subscription, United States and Canada, \$2; foreign, \$3. Current copies, 25c each. Member Audit Bureau of Circulations. Copyright, 1940, by The Nation's Schools Publishing Co., Inc. Entered as second-class matter Jan. 16, 1928, at the Post Office at Chicago, Ill., under the Act of March 3, 1879.

CONTENTS

"RURAL Guidance Is Different"; there's no disputing this title of an article for April written by Supt. J. Roy Leevy of Westfield Township High School, Westfield, Ill. One weakness of the educational program in the small rural high school is its blind imitation of the large city school system. Mr. Leevy outlines for the rural principal a guidance program that will carry the community right along with it as it is being built.

HUNDREDS of disappointed applicants, as well as many successful ones, may profit from Supt. H. D. Eldridge's advice on "How to Apply for a Teaching Job," scheduled for April publication. Superintendents and principals are certain to be seen scanning this article, for their prejudices form the basis for much of Mr. Eldridge's counsel to teachers.

SOME of the new and unusual questions that the 1940 census taker will pop when the housewife answers his ring at the front door will result in long desired data on public education. There will be information on the geographical distribution of teachers; their age, sex and race, and to what extent formal education is needed for typical employability as teachers. Special cross tabulations on teachers' incomes may be published.

As to the general population, the nation will learn for the first time the highest grade of school completed by each person. Another question will reveal how many persons of any age have attended school during the month previous to the enumeration.

Index of Advertisers.....	13
As Others Say It.....	20
Chalk Dust.....	52
News in Review.....	78
Film Releases.....	82
Films in Review.....	82
Coming Meetings.....	84
On the Air During March.....	86
Names in the News.....	88
The Bookshelf.....	96
Trade News.....	98

Horace Mann, Administrator..... 51

EVERETT H. FIXLEY points to the pioneer New England educator as one who achieved administrative leadership, not through coercion but through guidance.

Problems in Sound Pictures..... 53

Acquisition of a sound projector and equipment does not solve all instructional difficulties, ARTHUR L. RICHTER finds. He suggests some procedures to consider when adding sound pictures to the teaching program.

•Intelligence: Its Nature and Nurture..... 55

GEORGE D. STODDARD summarizes the 1940 Yearbook of the National Society for the Study of Education.

Negro School Is Community Center..... 56

Architectural description of the Cabell School at Charleston, W. Va., a building planned for community usage by M. M. KONARSKI.

•Wanted: Equipment Research..... 57

J. A. TRUE would delegate this work to an unbiased organization and would have the research financed by foundations or manufacturers' subsidies.

•Recreation, Libraries and Schools..... 60

WILLIAM G. CARR voices the proposal of the Educational Policies Commission that these three public educational services combine forces to form a public education authority.

•Education and Economic Security..... 64

The view that education is an investment and not a liability is expressed by JOHN K. NORTON.

School Finance in Alabama..... 68

M. M. CHAMBERS reviews new legislation that is intended to modernize Alabama's financial provisions for education.

1000 School Fires..... 70

Statistics reported to the National Fire Protection Association have alarming implications.

The Convention News

Administrators' Extra From St. Louis..... 33

THE NATION'S SCHOOLS presents in tabloid newspaper form its coverage of the seventieth annual convention of the American Association of School Administrators, which met in St. Louis, February 24 to 29.

The School Cafeteria

Off to a Good Start!..... 72

How proper use of the school cafeteria and good food habits are promoted among the pupils of the junior-senior high school at Lexington, Ky., is told by MARION L. CRONAN.

Figuring Food Costs Rapidly..... 76

GRACE STOWELL SAUNDERS presents a series of tables showing the cost per serving of various foods, based on a sliding scale of purchase costs or edible portion costs.

•From papers presented at the A.A.S.A. convention in St. Louis, February 24 to 29.

LOOKING FORWARD

Teaching Reason

THE importance of the American public schools in the teaching of reflective thinking and reasoned action in the improvement of democracy was recently stressed by President Roosevelt in a message to the teaching profession and to the parents of children. The President believes that it is the responsibility of the schools to teach the coming generation to solve its problem by democratic means or by the rule of reason. In part, he concluded, most significantly, that: "The easy answer, the quick but incomplete answer (to the solution of world problems) is force; tanks and torpedoes, guns and bombs. . . . Democracy calls instead for the application of the rule of reason. It calls for fair play in canvassing facts, for discussion and for calm and orderly handling of difficult problems. These vital skills we Americans must acquire in our schools."

Carroll Roscoe Reed

DR. CARROLL ROSCOE REED, superintendent of the Minneapolis public schools, has been chosen president of the American Association of School Administrators for 1940-41. His election brought forth the general comment that it is a "recognition long overdue." Doctor Reed has been a successful superintendent for thirty years.

He was born at Walden, Massachusetts, on Nov. 4, 1884, a Yankee by inheritance as well as birth. He attended the public schools and completed his general and professional work at Harvard University, receiving the bachelor's degree in 1906 and the master's in 1914. Carleton College recognized his professional contributions in 1935 by naming him a doctor of humane letters.

Doctor Reed's early teaching experience was in Maine, Massachusetts and Rhode Island. After superintendencies in Providence, Newton and Amherst, this Massachusetts Yankee came west and held superintendencies; first, three years at Rockford, Ill., a strong key position in the Middle West; five years at Akron, Ohio, generally known as a job that requires a high degree of social intelligence; back to Bridgeport, Conn., for four years, after which he was called to Minneapolis.

Doctor Reed's outstanding characteristic is his ability to understand and appreciate the points of view of

other people. As a Yankee born and bred, he cannot compromise his principles but he has to an unusual degree the ability to see the other man's point of view and can bring divergent personalities together into a smooth organization. Never flustered, always patient and with an intense appreciation of democratic processes, he has been uniformly successful in meeting the social and professional problems of every situation with which he has been confronted.

Outside of his normal professional duties he has been quietly and efficiently active for many years in professional organization. Here he has served on many committees, accepting every assignment and performing his tasks conscientiously and efficiently. He is capable but never showy, lacking completely the dramatic sense that makes front page news. He has been a member of The NATION'S SCHOOLS' editorial consultant staff since 1933 where his quiet counsel and advice on knotty editorial problems have been of great value. His administration as president of the school administrators should be sane and progressive.

Financing Education

PRESIDENT ROOSEVELT made a significant declaration at the 1940 White House Child Welfare Conference when he stated in response to the conference's demand for federal aid to education that: "The permanent answer (to the improvement of the education function) is not mere handouts from the federal treasury but has to be solved by improving the economics of the poorer sections. . . ."

The continued improvement of the education function and the progressive equalization of educational opportunity must first be solved within each community. In the last analysis, public education will be no better than the community's demand for it. There is no permanent relief or improvement possible by shifting the responsibility for the maintenance of public education to the state or to the federal government. Past and current increases in state support have been possible only because of the strong public opinion within the community.

If the state contributes the major support for education over a period of years, community interpretation, interest and support will be progressively weakened. It will then be possible for organized pressure groups

at state and national capitals to determine the degree of support furnished and to control instructional policy. There will no longer be a restraining check through fear of an aggressive local public opinion. There is grave danger under these conditions that the control of the schools will pass from popular to bureaucratic organization or to selfish pressure agencies.

To have adequate community support it is first essential that the district system in 26 states be reorganized to provide adequacy and a wider supporting base in local units. Every community should continue to support public education to the greatest extent compatible with its resources. Dependence upon community support means that the teaching profession must carry on a continuing program of interpretation so that the parents of children and the general public will be aware of conditions and needs and will appreciate both purpose and value of their public schools. While it is true that both state and federal governments must ultimately contribute increasing sums for educational support, it is also highly desirable that the combined state and federal support is not larger than the community appropriation. There will normally be exceptions to this condition but the general principle is sound.

It is possible that the teaching profession in its eagerness for the immediate improvement of the education function will propagandize for a plan of state and federal support that will ultimately be dangerous to our folk-made and folk-directed system of public education. A longer view of the entire problem and less emotion in the solution of the school finance problem will be more helpful to public education as a whole over the long span of years. The President is eternally right. Mere subventions from the federal treasury will not solve the problem. The basic spade work must be done within the community.

The Superintendent's Wife

DURING the last year we have received several earnest and sensible communications from the wives of superintendents and principals. These letters described their unsung contributions to their husbands' success, their problems and their pleasures. It is their responsibility to supplement effectively but most unobtrusively their husbands' shortcomings, to assist socially in the solution of difficult personality problems and withal to remain so completely in the background that the cry of "interference" is never raised. They go to conventions, sit in smoke-filled lobbies, listen to the informal comments of their bekeyed "big-men," try to get a little sleep regularly, but otherwise suffer from complete neglect. The typical convention-participating male considers them merely a pleasant part of the landscape.

The convention authorities take little cognizance of their presence and their loneliness. No parties are

arranged and it is unusual if anything is done to make them more comfortable.

It seems to us that these valuable adjuncts to general administration have a real grievance. It would be a simple matter to arrange a tea, a reception and sight-seeing trips for them. Such consideration would certainly be appreciated. We humbly suggest that convention authorities give some little thought to this problem in future meetings and give to administrators' wives a feeling that their quiet and behind-the-scenes efforts are recognized and appreciated.

Amateurs Again

AT THE request of the institutional authorities, Edwin Newton Atherton spent two years and some \$40,000 studying and reporting upon conditions in intercollegiate athletics on the west coast. His work included a general study of 500 letter-men in California, Idaho and Montana and a detailed analysis of 250 individual case histories, combined into a report totaling 2,000,000 words. The report was presented to the authorities in the 10 institutions involved and was carefully studied.

The report was not and will not be generally publicized but the authorities were so much impressed with the evidence that the Pacific Coast Conference has promised extensive reform, prohibiting the following practices: (1) recruiting secondary school athletes, (2) offering athletic scholarships, (3) providing "cush" campus jobs requiring none or a minimum of work, (4) approving subsidies by alumni, (5) providing athletes with tickets for "scalping" to gain individual revenue and (6) any other practice that may interfere with pure amateurism. The author's immediate reward was a three year contract as commissioner to see that this program is carried out.

All commendation to the Pacific Coast Conference for wishing to clean up dubious practices. If this program of reform can be carried out, the institutions will be benefited educationally but their football will certainly decline in quality. It is also dubious whether ebullient alumni enthusiasm can be successfully curbed. This is the most difficult "spot" of all. There are too many graduates whose sole institutional interest is in football players with an elusive change of pace and an instinct for piling up yardage. The outcome will, therefore, be awaited with a reasonable amount of reservation.

The general problem of collegiate athletics, particularly football, seems too difficult to be solved by easy institutional promises to be good in the future. So long as a game is ballyhooed and hippodromed to the extent that collegiate football now is, it will be almost impossible to maintain the questionable (for the United States) ideals of amateurism adapted from the English pattern. Institutions of advanced learning

must be willing either to reorient their athletics to intramural sports or else to recognize that amateurism in the United States cannot conform to British patterns and must face the problem of subsidization openly and frankly as has been done in the South.

Sex Instruction

THE United States Health Service through the work of Dr. Benjamin C. Gruenberg has recently published a most valuable bulletin entitled "High Schools and Sex Education." It is rich with sensible advice and suggestions for the permeation of every curricular division with sane attitudes and matter-of-fact teaching. In our estimation, this bulletin is one of the real contributions to current educational literature and should have a profound effect upon teaching. Recognizing the fact that sex instruction is a moot field, Dr. Thomas Parran, surgeon general of the United States Public Health Service, states that:

"The need for sex education, beyond what the average child receives, is generally recognized. What it should consist of, how and by whom instruction should be given and the part to be played by the schools in their role of adjunct to the home are questions which cannot be finally answered in this publication. The schools, however, must assume a major share of the responsibility so long as countless parents turn frantically to outside agencies for aid. As one of the agencies to which many parents turn for assistance, the Public Health Service is also anxious to assume its share of the responsibility because of its concern with the mental and social—as well as physical—health of the nation.

"It must be emphasized that the schools, in assuming their responsibility, must face a number of problems. In putting any program into effect, they must consider the attitude of parents. They must recognize the dearth of capable teachers in this field and the necessity for education not only of young people but of teachers and parents as well. In addition, they must take into consideration the favorable and unfavorable influences to which various groups of students have been subjected. . . ."

Advisory Committee Report

ON DEC. 29, 1939 the 20 volume report of the Advisory Committee on Education was finally completed and presented to President Franklin D. Roosevelt. The research of the committee includes 19 individual staff studies and the general report of the committee. In commenting upon the report, the President stated:

"Please accept my thanks for your letter of December 29 and for the 19 staff studies prepared for the Advisory Committee on Education and comprising an

examination into the status and problems of education in the United States. This is truly a monumental work. The titles of the studies alone reflect the breadth and scope of the many-sidedness of the work now brought to completion.

"In expressing my appreciation of the services of the members of the Advisory Committee may I ask you also to extend my thanks to the able corps of experts—both men and women—who cooperated in the preparation of the studies now available in convenient form to all who are interested in the vital problem of American education."

The total report of the Advisory Committee on Education is the most complete current view of public education in the United States. It deserves thoughtful reading by members of the teaching profession, students and laymen who are interested in the social significance of the activity.

Certain of the research studies unconsciously puncture the assumption that educational activity under the direct control of the federal government is more efficient than community supported and operated schools. The analysis of the operation of vocational education (Staff Study No. 8) indicates the difficulties that arise when the federal authority decides to administer a program from Washington. It also points out the dangers to the one way classless system of public education that are growing out of the administration of the Smith-Hughes and George-Deen acts and the curricular imbalance that naturally develops when one phase of subject matter organization is emphasized at the expense of the others. Prof. John Dale Russell's study of the operation of federally supported vocational education is a strong argument against subventions for special aspects of the instructional program. It supports completely the contentions made by the National Advisory Committee in 1931.

Budget Interpretation

There has been a most commendable improvement in interpretation of the community budget in recent years. Some of the best of these efforts have been made by Supt. Vierling Kersey in Los Angeles, Supt. James M. Spinning in Rochester and Supt. Stanley M. Rolfe in Newark. These productions should stimulate other communities that are confronted with the same problem. Their program includes the preparation of a technical budget for the appropriating authorities and a popular budget for the people. These efforts indicate that it is possible to translate a technical financial program into simple purposes and objectives and to illustrate effectively the activities which their tax contributions provide.

The Editor



Four Criteria for Modern



FOR those who are content with the formal program of elementary education, there are no serious tasks ahead. There are many, however, who feel that the old "sit and listen" school is on the way out. They are no longer content with a sterile transmission of the racial heritage through the medium of the formal textbook. Out of a welter of conflicting ideas, experimentation and firsthand experience, they are forming a new philosophy of education.

The new philosophy of education has given rise to a new task, that of adapting the school building to new methods and new uses. The basis of school design must be found in that new philosophy and not in laws, standards or the best current practice. The burden is upon the administrator and the architect to see that the building plays its vital part in the program of education.

Four criteria can be used to measure the effectiveness of a school building. In the first place, it must be safe. The hazards of fire, storm and earthquake must be guarded against. In some states this is well taken care of by law, while in others there is nothing but the integrity of the architect and contractor standing between the children and disaster.

Four views of Lincoln School, Whittier, Calif., which has been adapted to new methods arising from a new philosophy of education. New classrooms are 24 by 40 feet to accommodate an activity type of program. They open on a loggia through either large sliding doors or glass double doors. Left: When the sliding doors are pushed back, the loggia becomes an extension of the classroom. Lower left: A closeup shot of an outdoor classroom shows storage space, clay table and painting area in this kindergarten. Right: The painting area is invaluable when a large frieze is being made. Lower right: The shadow box at the front of the room simplifies the visual instruction program.



Elementary School Plants

If there was always enough money for school buildings, it would be much easier to obtain safe buildings. The need for cheaper buildings leads to the substitution of cheaper materials and to the elimination of safety factors.

In addition to being safe, a school building must be sanitary in the broadest sense of that word. Most

new buildings easily can be built to meet this requirement. Poor ventilation, faulty plumbing, inadequate lighting and cramped quarters are largely matters of poor planning. When neglected they constitute hazards that are just as real and probably

WILL L. WILEY
District Superintendent, Whittier, Calif.

more damaging to the lives of children than more spectacular dangers.

The third thing to be attained in a school building is that of beauty. The American public school is the expression of a mighty faith and it should be housed in buildings that



are a permanent cultural example. Beauty is not a luxury; it is a necessity of the "good life." Nothing can be more formative in the lives of pupils than living in fine rooms and playing about a building that is beautifully proportioned. Overornamentation or extravagance is not necessary or desirable. Beauty of line and proportion, interesting detail and harmony of color are more often a matter of skill and artistry on the part of the architect than of money. Such ability is worth all it costs.

The fourth thing that should be expected of every school building is that it should be serviceable. Its plan and detail should make teaching more efficient than it otherwise would be. Even new buildings impede progress with the heavy inertia of the past. A searching analysis of the school activities must be made and then the building must be built so as to contribute rather than to detract from those activities.

Schools being built to operate under the progressive philosophy are showing the effect of such analysis and planning. Because of individual differences and because a well-rounded individual is the goal, many different experiences are being provided. Provision is made for intellectual, physical, social, constructive, creative and esthetic activities. This is in line with the psychological truth that learning grows inherently out of experiencing. To be vital, the experience must be lifelike and have reality of purpose for the child as well as social value. This emphasis upon pupil purpose and pupil satis-

faction is just an attempt to reestablish the central significance of the individual in the educational scheme.

These problems will be solved in different ways in different communities. The following account will describe the attempt that is being made to improve educational opportunities for children at Whittier, Calif.

The first problem faced was that of room size. In California state aid is given on the basis of 35 children to the teacher. This has tended to fix class size near that point. Experience has shown that it is difficult to carry on an activity type of program in the old classroom, which is usually 23 feet by 33 feet in size. The new classrooms are being built 24 feet by 40 feet. They are so planned that they open out on a loggia, either through large sliding doors or glass double doors. The loggia is as long as the room and is from 8 to 10 feet wide. In effect, the loggia becomes an extension of the classroom. The use of movable furniture adds to the flexibility of the room program and makes it possible to use all space to the maximum.

More than area is required in an activity classroom. The emphasis given to constructive and esthetic activities requires equipment and storage space. The most evident need, when entering an old-fashioned classroom where an activity program is being carried on, is that of storage space. Storage is required for books, for paper, for paints, for lumber, for clay, for projects under construction and for an endless list of materials and supplies. Unless adequate stor-

age space is provided, the activity room is likely to present the general appearance of a "hurrah's nest."

The Whittier classrooms have a free standing case, 3 by 9 by 7 feet, in the rear; it is divided into compartments. Part of this space is used for shelves for wide paper and for a 36 inch roll of butcher's paper. Back of the case there is a sink with running water and drain board. Under this are metal lined drawers for clay and storage space for paint, calcimine and brushes.

Since so much time is given to painting activities, the back of the room is equipped with cork carpet, 18 feet long and 4 feet high. Below this is a metal trough with 2 inch round holes for receiving poster paint cups. Such a space is invaluable when doing large scale poster painting or friezes.

A second case, 20 feet long and 30 inches high, is built under the windows. Three work benches equipped with a hardwood top and vises slide in and out of this case. Beside the benches are drawers for tools, nails and supplies. Under the benches are three boxes nested together which can be used for saw horses. When the construction period is over, the benches are put into place and the room no longer presents the appearance of a shop. Shelving occupies the remaining portion of this cabinet.

Two bookcases are built into the front of the room. The only blackboard in the room is across the front. Storage for four maps is provided below the chalk rail and an adjustable map rail is provided above the blackboard.

One thing that retards the wider use of visual aids is the difficulty involved in getting set up for the pictures. To help meet this problem, a beaded screen is built into a shadow box back of a section of the blackboard. The blackboard section is on hinges so that the screen is always in place ready for use. Electric outlet plugs are placed directly below this screen. Each room is also connected to a public address system, and radio programs can be brought to any room or to all rooms. Electric clocks, an electric eye for the control of the lights and thermostatically controlled gas heaters are standard equipment for all rooms.

As Others Say It

Compiled by JOHN G. ROSSMAN
Superintendent of Schools, Warren, Pa.

No true artist works by the hour.—SIR HENRY WOOD.

I have often regretted my speech, never my silence.—SENECA.

It is easy to sit at the helm in fine weather.—FROM THE DANISH.

Some people die at 30, but are not buried until 80.—SELECTED.

A man who cannot mind his own business is not to be trusted with the king's.—SAVILLE.

He who would exchange liberty for temporary security is not worthy of either.—BENJAMIN FRANKLIN.

The best doctors in the world are Doctor Diet, Doctor Quiet and Doctor Merryman.—JONATHAN SWIFT.

School Plant Needs

ARTHUR B.
MOEHLMAN

Professor of School Administration
and Supervision, University of Michigan,
and Editor, *The Nation's Schools*

THE threat of devastating war, the continuing decline in total population, the need for the readjustment of the economic machinery to changing conditions and the improvement of public education are probably the most serious problems confronting the United States today.

According to many of our vocal and verbal economists the most significant problem is that of declining population because of its collateral implications. A young, vigorous and growing nation has one series of needs; a middle-aged and cautious population whose vision is shorter and whose sense of glorious adventure has been dimmed has a different set of needs. The educational needs include long-range planning for program, plant, personnel, matériel and finance.

Since our immediate interest is in the needs of the public school plant, the problem of declining population needs some attention. It is probably true that the ultimate stabilization of the United States population at 150,000,000 or 160,000,000 means a definite ceiling for public educational activity on the child, youth and adult levels. It means a limited demand for elementary, secondary and advanced institutions of learning. Although the gradual stabilization of elementary and secondary population may be offset in total numbers by growth in adult education, this fact has no appreciable effect on the school plant itself because of dual use of these facilities.

While the ultimate influence of declining population upon school plant needs cannot be denied, these changes in total population will not seriously affect school plant needs for the next fifteen to twenty years.

The reasons for this delay are threefold. First, the lag in school plant construction between 1911 and 1935 resulting from lack of long-range planning, the cessation of construction during the World War and the early years of the depression has produced a large deficiency that can



Underwood School, Wauwatosa, Wis., is used as a community center meeting and voting place. Fixed glass block windows in the gymnasium and standard balanced windows in the other rooms permit air conditioning.

be overcome only gradually; second, the present 126,849 independent school districts must be reorganized to provide greater equality of educational opportunity and efficiency in instructional operation, and, third, the low character and age of much of the existing plant, which includes a large number of obsolescent and dangerous buildings, indicate a replacement program of unusual proportions.

According to a survey prepared by Walter N. Polakov for the National Resources Committee in 1936, the accumulated school building deficiency developed between 1911 and 1934 amounts to \$1,340,000,000. The elimination of insanitary, unsafe and educationally inadequate buildings will require another \$1,373,000,000. The structural reorganization of the present inadequate district system that still obtains in 26 states will require at least \$2,000,000,000 more. To this total of 4.7 billions should be added \$300,000,000 for equipment and \$200,000,000 for land and landscaping, or a grand total of \$5,213,000,000 required to bring the present

school plant up to a defensible standard of physical and instructional efficiency.

The estimated construction value of the existing plant in 1935-36 was \$6,731,324,741. This valuation includes a total of 238,867 buildings of which 211,311 were in rural areas. While the urban schools show fairly good construction standards, despite their low spots because of age, the rural schools generally present a different condition. Of the total 211,311 rural buildings 132,813 are one room schools.

Improved ventilation and heating, improved natural and artificial lighting, modern sanitary conditions, provision for greater safety to life (there is an average of five school fires daily) and the replacement of obsolete and worn out equipment may be conservatively estimated at 5 per cent of the total valuation, or approximately \$330,000,000 a year. Since much of the money expended for improving the existing plant is classified as "upkeep" under current expense, it escapes the general reader who is looking for "capital outlay."

To summarize, the catchup and reconstruction plant program needs now stand at five billion dollars in round numbers. The annually recurring expenditures for upkeep and improvement should be approximately \$300,000,000. Realizing the impossibility of spending the huge sum of five billion dollars within several years, even if it could be appropriated, it might be more practical to budget this amount over a ten year period. If this could be accomplished, the annual expenditures for new work and improvement would total \$830,000,000 annually for the next decade!

Since it is probably more reasonable to assume that a twenty rather than a ten year program of replacement would be possible of realization, the annual school plant requirements for the next twenty years may be conservatively placed at approximately \$580,000,000!

Maintenance Lags

In 1935-36 the actual expenditures for plant upkeep totaled only \$64,475,349 and capital outlay amounted to only \$171,321,674. If this rate of expenditures is not considerably stepped up during the next two decades, the catchup, replacement and improvement program will show even greater lag.

Earlier building was almost universally financed through long-term borrowing and, consequently, the existing school plant is mortgaged to the extent of \$3,043,125,380, or almost 50 per cent. Since the use of debt actually doubles the cost of building, this heavy mortgage should be recognized as one of the factors retarding current expenditures. The first demand upon the total annual educational budget for debt and interest payments is \$554,885,805, a sum sufficient to meet the proposed needs for new work and rehabilitation budgeted on the twenty year plan!

The general problem confronting the individual states and the nation is to provide for these recurring needs on the conservative basis recommended of approximately \$500,000,000 annually.

The second problem is the development of plans for financing capital extension and upkeep without resorting to long-time borrowing. The

elimination of borrowing from the capital program immediately raises the problem of a radical change in local, state and federal finance policy with respect to the school plant.

There are many educators who believe that the federal government may best equalize educational opportunity without raising the issue of instructional control by contributing the total annual school plant requirements, budgeted at half a billion annually, through its public works agency. Another group believes that the federal government might well appropriate half of the school plant cost with the states furnishing the other half. A third opinion holds that the state and local community might share the cost and that aids for school plant construction should be included in a well-balanced system of state support. A fourth opinion clings to the conventional belief that each district should continue to furnish its own capital requirements and that borrowing is desirable as a finance policy.

Since the greater proportion of capital needs, approximately two billion dollars, will be required for the reorganization of local administrative district structure, it is obvious that this change will proceed slowly unless state and federal governments unite in meeting this need. The reconstruction problems are chiefly small town and rural. Financial resources are even more limited than in urban centers. Farms and houses cannot afford another mortgage. Unless a pay-as-you-build policy is adopted, it is doubtful whether this essential structural reorganization will proceed at desired speed.

Provide Plant Subsidies

Six states (Alabama, Missouri, New York, Oklahoma, Tennessee and Washington) already have recognized this problem and provide small school plant subsidies. Provision for school plant needs is as reasonable a part of state aid to local districts as subventions for teaching, transportation and textbooks.

In addition to the normal difficulties encountered in obtaining adequate recognition of school plant needs by the teaching profession and the layman, there is another potent danger. The beginning of the pres-

ent European war has already affected both our economy and our budget. To protect our rights and our interests against power crazy totalitarian states, the United States in 1939 voted the largest peace time military and naval budget in its history. These appropriations probably will be exceeded in 1940 and in 1941. These expenditures may be necessary. It is always better to have a few extra ships and planes in an emergency. Owing to the huge federal debt contracted during the World War and as a result of the depression, American resources are now considerably limited. In order to provide for the huge defense program other valid and vital social needs are being sacrificed.

Outlook Is Encouraging

The Public Works Administration, through which federal aid for school buildings was administered, will probably be without funds in the near future. Essential work aids through N.Y.A. to equalize educational opportunity for those who cannot afford to attend school also will be heavily slashed. Essential relief needs and health programs will be cut far below basic adequacy. In addition, if the United States is drawn closer to, or possibly into, the present war, every peace time social need will suffer the same fate as during 1917-19 when local school districts were forced to stop using their community funds for school building.

The only way to prevent near-war or possibly war hysteria from affecting school plant needs is to begin immediately in every state the building of a public opinion that recognizes and is willing to support the needs of a balanced educational plan which includes program, plant, personnel, matériel and finance to provide these four essentials.

Unless the teaching profession, board of education members and socially minded laymen are willing to participate in this program of broad interpretation of school plant needs, they are bound to suffer in competition with apparently more pressing and emotional social demands.*

*Address presented before the eleventh annual conference, National Advisory Council on School Building Problems, St. Louis, February 24.

Youth in Community Activities

SAMUEL EVERETT

Professor of Education
Northwestern University

IN SEPTEMBER 1939 the Educational Policies Commission undertook an exploratory study of citizenship education in a number of American secondary schools. The schools chosen for investigation were from among those recommended by competent observers as carrying on fine work in citizenship.

In the period between Sept. 1, 1939 and Feb. 1, 1940, more than 60 schools were visited by the six members of the commission's civic education staff. The findings of the study should be of value to practical school administrators and teachers, inasmuch as the forthcoming report of the commission will consist of a series of case studies of the best practices in citizenship education found in the schools visited, supplemented by material from contemporary literature in the field.

Budget Limits the Study

The staff early faced the problem of the extent and scope of the problems involved. It seemed obvious that citizenship is gained not only in school but also in the larger community outside the school. It was, therefore, decided that the participation of school youth in community life, as a part of secondary school programs, should be investigated. At the same time it became clear, because of budgetary and time limitations, that the participation of youth in community activities unconnected with public school systems could not at this time be included in the study.

A number of otherwise fine schools were doing practically nothing toward community activities, not even using the educational resources available through journeys into the community. In other schools—and this was true of a majority of cases—pupils, teachers and interested laymen were participating in one or two community school activities rich in citizenship values for all concerned. But such would be the extent of the

school's participation. Other real possibilities for successful community activities had been neglected.

In only a small number of the schools visited had there been developed a comprehensive program of school-community participation involving many pupils, teachers, parents and lay groups.

There seemed to be no relation between the excellence of citizenship programs in classrooms, or school activities, and excellence of citizenship education in the participation of school youth in community activities. These things do not, at present, seem to go together. The obvious conclusion is that more careful thoroughgoing study, experimentation and reorganization are needed in the secondary schools visited in order to develop well-rounded programs. If this is true of this particular group of schools it would seem obvious that thoroughgoing program revision is even a greater need in the mine run of schools throughout the country.

But what are the characteristics of successful and socially valuable types of citizenship education through community participation? What are the criteria which one may use to distinguish good programs from bad? Five elements are of importance.

Criteria of Good Programs

1. In effective programs the participants are facing problems that are vital to them. They may be real and vital because of personal interest and need or because of a consciousness of the social importance of the problem.

2. The participants are free to "do something about" the problems they face. Nothing is more destructive of morale than to find, after considerable investigation of any problem, that some outside and arbitrary authority prevents any action, even the most tentative, in seeking a so-

lution. On the other hand, perhaps nothing is so exhilarating as a feeling of freedom to deal with the problems that one faces.

3. The participants, in the United States at least, are conscious of certain democratic values involved. These would necessarily include respect for the personality of every individual, concern for the common welfare and responsibility of individuals and groups for their own actions.

4. Effective participation in community activity improves the quality of community living. It is not enough that one engage in activity. It is requisite that the activity have some beneficial effect upon individuals or groups of individuals in terms of democratic values.

Basic Social Issues

5. The participants in community citizenship activities are led, as an integral part of the activity, to make conscious choices relative to vital issues in American life. The nature of these issues may vary depending on the nature of the problem and of the local situation. They may involve numerous vital public questions, such as conservation of human and natural resources, power, unemployment, governmental functions, property rights, paternalism.

The one criterion met least effectively in the community citizenship activities of the 60 schools visited is the fifth, bearing upon basic social issues. In the long run, decisions with regard to basic issues in American life are of tremendous importance. It would seem from the data gathered in the civic education study that the greatest weakness is the lack of intellectual grasp and understanding on the part of participants of basic socio-economic issues in American life. That such a criticism may well be leveled at every aspect of the programs of our public schools does not mitigate its importance with regard to community activities but makes it even more important that this be done in community participation in citizenship education.

EDGAR G. DOUDNA

Secretary, Board of Regents
Wisconsin Normal Schools

What Is Right

Progress in Elementary Schools

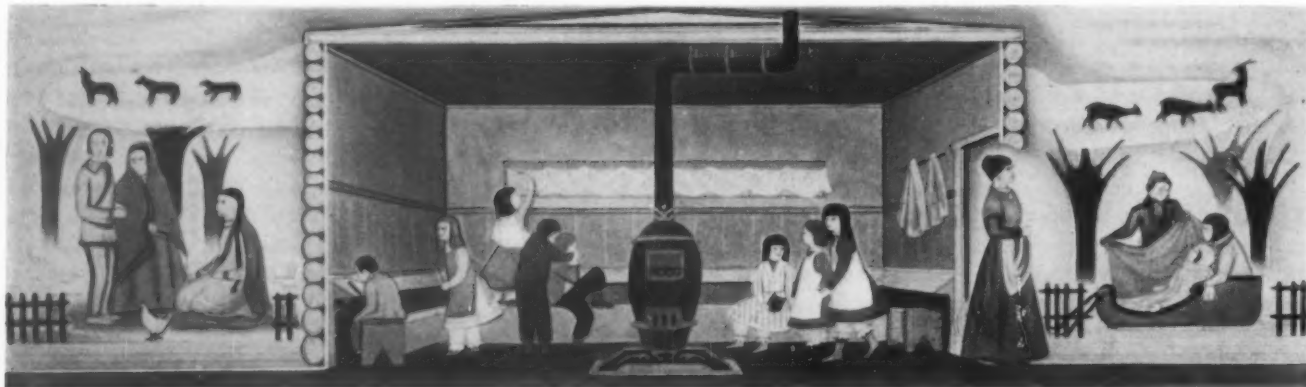
EDUCATION on the elementary level is now free, universal and compulsory. About 20,000,000 pupils, or about 75 per cent of the enrollment in American public schools, are on the elementary level, *i.e.* kindergarten through the eighth grade. Approximately 600,000, or 60 per cent, of the teachers, principals and supervisors are engaged in elementary education. But they do not get 75 or even 50 per cent of the attention, public recognition, professional understanding and financial support given to the schools.

There are obvious reasons why the elementary school does not make the front pages. For one thing, the ac-

What specifically has happened? In the first place, there has been an astonishing expansion of schools both outward and upward, horizontally and vertically. High schools, continuation schools, colleges and adult education make school contacts many years longer. This releases pressure on the elementary school so that it no longer has to be organized as if everything thought necessary as preparation for adult life is put into the program of subjects of an eight grade common school. The curriculum has been simplified and it will undergo more changes when secondary education reaches the 30 or 40 per cent of the boys and girls of secondary

we had the first application of an objective study of educational problems that has produced fundamental changes in the curriculum content, organization and method. Like all new things, some of the enthusiasm of those who believed that statistical treatment could control all school practices moderated when it was discovered that not everything that exists can be measured. But when one considers what has happened in spelling, say, since the days when we conned the lists of useless and strange words of the old spelling book, he has to admit progress.

Closely associated with and a part of the scientific movement is the



"Early Schoolroom" by Emanuel Jacobson. One of a series of mural designs for the Horace Mann School, Oak Park, Ill., done by the Federal Art Project.

cepted, the usual, the obvious does not arouse interest. The elementary school is rarely sensational. There are no sounding boards and publicity machines to create and maintain interest. No great stadiums, auditoriums and extracurricular exhibitions arouse mass enthusiasms. On the contrary, elementary education, being basic to all education, culture and social progress, is taken for granted. Perhaps this is all to the good, for quietly, unostentatiously and almost universally the elementary school has improved in organization, in curriculum, in method and, above all, in the personnel of its staff and quality of its teaching.

school age who are now outside of high schools.

Better buildings, sanitation, playgrounds and equipment are evidences of material progress. Internal educational changes are, however, not so easily comprehended by the layman. The younger members of the teaching profession who accept them as part of their working foundations may not know how hard they were to win.

Education in the elementary school was accelerated by its early acceptance of the results of scientific experimentation in common school subjects, such as spelling, reading, arithmetic and penmanship. Here

advance in our understanding of child nature and the learning process. Through experimental evidence we know a good deal about how people learn, the limitations of automatic transfer and the nature of intelligence.

There may even have been a too ready acceptance of the I.Q. as fixed once for all and as unchangeable as the laws of the Medes and Persians but, except where the radical reformer overdid it, as he does every new thing, it helped the teachers to understand somewhat objectively the probable limitations and the possibilities of the pupils.

The elementary school has made conservative use of the contributions of the psychologist and has reorgan-

(Continued on page 32)

With the Schools

F. T. SPAULDING

Dean, Graduate School of Education
Harvard University

Progress in Secondary Schools

PUBLIC schools in America exist for one primary purpose: to give American boys and girls the educational equipment that each one of them will need if he is to become the best possible member of this republic. The secondary schools, as only part of the public school system, can bear only part of the responsibility for achieving this purpose. Yet the secondary schools now have in their charge for at least a brief period nearly all the young people who go to school in America. Moreover, for the majority of these young people the education that the secondary schools provide is the end of full-time schooling. It is, therefore, not unfair to consider what is right with the secondary schools in terms, first of all, of what most young people have gained from their school work by the time they leave the high school.

Boys and girls leaving high school in America have attained, as a group, a higher level of literacy than has ever been made the possession of any comparable group of young people at any period in the history of the world. Critics of the secondary schools may point out that young people's present level of literacy leaves much to be desired.

However just this complaint, the fact is not to be minimized that the average high school pupil in America can read and write and use arithmetic better than could his parents when they left school; that he has learned more about history and science and literature and art than his parents had learned by the time their own schooling was over; that his school work has, in short, given him a broader background of knowledge and knowledge more thoroughly acquired than any other nation has even attempted, let alone achieved, for more than a fraction of its young people.

Nor has the literacy that the schools have provided been merely a

formal accomplishment. It has been effective outside of school in a great variety of ways. Largely through the influence of the schools, for example, America has become a nation of readers; not readers of classical literature, it is true, but interested and habitual consumers of newspapers and magazines and current books.

At least in part because of the influence of the schools, America has also become a tremendous user of many things that make for higher standards of living, labor-saving devices in the home, the services of hospitals and physicians on a scale that lends strong popular support to the

The 1940 convention theme expresses optimism on the part of the educators. Instead of pointing to the social wrongs commonly attributed to the schools, educators are emphasizing what is right

movement for socialized medicine, paintings by the masters reproduced for the enjoyment of hundreds of thousands of people, the music of great composers recorded by the best of the world's artists and orchestras. For such widespread developments in American life as these, for the fact that they are widespread, instead of being confined to a small minority, the secondary schools can justly claim a share of credit.

The secondary schools can claim credit also for the wholesome physical habits of most American boys and girls. Some of these habits are negative, in the sense that they consist of avoiding ill health. By and large, American boys and girls leave school with firmly fixed habits of bathing, washing their teeth, brush-

ing their hair, keeping their clothes clean. They have learned to demand clean water, clean food in restaurants, clean stores, clean railroad cars and buses. They support laws which are gradually bringing greater cleanliness to streets and public buildings and which already have made most American communities notably healthful places to live in. And, in addition, the schools have given boys and girls certain more positive habits of health. The average young person in America likes physical sports and likes to be outdoors and he indulges both these likings in ways that are good for him. As an offset to the unhealthful conditions which urban living, in particular, often brings with it, the contribution of the schools toward producing a nation of healthy people has been of no mean importance.

There is at least one further major contribution that the secondary schools have made. More than any other single institution, more, even, than the elementary schools, the secondary schools have helped to minimize class distinctions and to keep class lines fluid. Bringing together rich and poor, the children of unskilled workers and of professional families, boys and girls from the hill and from the other side of the railroad tracks; offering all these boys and girls an opportunity for continued education; providing a way of living within the school that attaches real importance to what a boy or girl does or can do, and not just to the background from which he comes—through these means the secondary schools have made and are continuing to make a contribution to American living that is as fundamentally "right" as anything in America today.

To recognize that the secondary schools are still somewhat selective need not blind us to the fact that they are more nearly democratic in the services that they render than is any other social institution that we

have been able to build up and maintain on a going basis. However far they may be from the goal of complete democracy, they are keeping alive in the minds of millions of American citizens the faith that a boy or girl need not hold to his father's station in life just because that station was his father's and they are giving to countless boys and girls an ambition to make the most of their own interests and talents.

The secondary schools have helped to raise the standard of literacy and the standards of living in this country; they have had much to do with creating a healthy nation; they have made a unique contribution to the preservation of democracy in America. Summed up in terms of these major achievements, the list of things that are right with secondary education can hardly be considered a meager list.

What Is Being Accomplished

However, beyond what secondary education already has accomplished there ought also to be set down to its credit certain things that it is well on its way toward accomplishing. In two respects especially, the secondary schools are making progress that deserves explicit recognition.

First, schools in increasing numbers throughout the United States are devising new methods of teaching, new instructional materials and new programs of study through which they may offer a better education to boys and girls whose interests and abilities are different from those of the hypothetically average pupil.

That schools in general have kept to a more or less standard curriculum is hardly to be wondered at: the task of providing merely a place to go to school and something to do for a school enrollment that has doubled every decade since 1890 has in itself taken a major share of the time and thought of school people. Despite this burden, various schools have been actively at work on programs for exceptional pupils at both ends of the academic scale. The new curriculums and new methods of teaching being tried out in the schools cooperating in the eight year program of the Progressive Education Association furnish one example, though not the only one, of progress

toward a better education for young people of unusual talents.

For boys and girls not gifted in the kinds of ability that secondary schools have required in the past, new curriculums and new methods are being similarly devised. We find examples of these in schools like those of Pennsylvania, where the high school principals of a whole state are working together on the problem; in many vocational schools, which have recently been given opportunity to broaden their curriculums under the provisions of the George-Deen Act; in the school systems that are beginning a program of experimentation under the joint auspices of the Office of Education and the National Youth Administration; in individual schools elsewhere, in which teachers and school officers have been taking careful stock of the needs and interests of the "new 50 per cent" of their pupils.

The flexible school organizations provided by the junior high school and the junior college offer an especially valuable proving ground for these experimental programs. Out of such programs will come, it is fair to believe, a secondary school approaching measurably nearer than do even the best of our present schools to the ideal of a school definitely designed for all American young people.

Emphasis on Guidance

Second, our high schools are dealing more and more directly with the problem of educational and vocational guidance. Systematic programs of guidance have been handicapped in their development by various factors, not the least of which has been the tendency of people outside the schools to regard such programs as no more than passing fads. The need for systematic guidance is becoming increasingly evident. For the schools to provide a varied and flexible curriculum is obviously important, but no curriculum will serve the full purpose it ought to serve unless, along with it, the schools can provide means for seeing that every boy and girl chooses those parts of the curriculum that are most appropriate.

The groundwork for an effective program of guidance is already being laid in the study of individual boys and girls by educational psycholo-

gists, in the development of more accurate means of educational measurement, in the gathering of more searching information than we have had in the past about the varied educational demands of out-of-school work and out-of-school living.

The groundwork is being laid also in a sharpening of the concern of school people everywhere for what becomes of boys and girls after the schools are through with them. The progress already being made in both these directions justifies the hope that the secondary schools may shortly offer not merely an appropriate educational opportunity for every normal boy and girl but the assistance that boys and girls need in choosing the education that will benefit them most.

Concern About Defects

Beyond the present achievement of the schools and beyond the progress they are making in improving their programs, there is one final characteristic of the schools that deserves an important place in any listing of what is right with secondary education. That is the willingness of secondary school teachers and administrators to give serious thought to what is wrong with secondary education. Social and economic conditions outside the schools have in the past few years placed a heavy strain on our whole educational program. For a number of reasons the strain has fallen most heavily on the high schools. As an inevitable consequence, recent attempts to discover what the high schools need now to do that they did not need to do a few years ago have revealed numerous present defects in the secondary school program. It is to the notable credit of secondary school people that they themselves are concerned about those defects and that they are actively working to remove them.

Without a concern for what is wrong with secondary education, even present achievements would rest on no substantial foundation. With that concern, granted only that the public that supports the schools will give them the time and the resources to do what needs to be done, the secondary schools can be counted on to meet the new demands now placed upon them.

"No Brand New Safety Illiterates"

HENRY H. HILL

Superintendent, Lexington, Ky.

THERE is a story of the near-illiterate who could read only part of the highway sign indicating the name and distance of the next town. In his own words, he could read "how far" but not "where to."

After many years of safety effort by industry and the schools we can tell in terms of numbers of accidents how far we have come and how far we have to go, but we are not yet too certain of our ultimate destination in terms of the kind of citizens we must develop if Americans are to be both safe and free.

Safety and freedom in a democracy are possible only through education in its broadest connotation. Two years ago President Charles B. Glenn and the executive committee of the American Association of School Administrators selected safety education as the topic of the 1940 Yearbook. The wisdom of their choice will be apparent if the present volume enables the schools to formulate better safety education policies and practices consistent with democratic processes and our machine dominated society.

Driver Education Emphasized

Safety education, its philosophy, administrative structure, curriculum on all levels and coordination are treated in the yearbook. In addition, there are chapters on preparation of teaching personnel, safety programs in rural schools, safety education for adults, safety under school jurisdiction and safety requirements for school buildings. Driver education and training are treated extensively because this is a relatively new field and perhaps the freshest core curriculum around which to build safety education on the secondary level.

Home safety is included in the curriculum chapters but the commission did not discover anything new or unusual in this field. Safety experts have thought up many ways to

keep grandma from falling but psychologists have neglected to supply the "grandma psychology" necessary to get her to follow the suggestions of the experts. Education by remote control, that is, through the children, is the chief reliance for obtaining home safety in a nation where man still retains considerable personal freedom.

The commission believes that the schools have a definite responsibility for safety education. Sensational methods, including drives and cam-

Safety Education is the topic of the Yearbook for 1940, abstracted here by the committee chairman

paigns, still may have some value but these should be replaced during the next decade with tested and matured programs which can be continued effectively year after year. Hundreds of school systems still have no definite plan of safety education, either integrated or taught as a separate course. We need more knowledge of how to teach safety education but of even greater importance are the immediate acceptance and wider use of the best known practices.

An illiterate is defined as a person more than 10 years old who can neither read nor write. A safety illiterate may be defined as a person 16 years of age or older who can neither drive a car safely nor walk in pedestrian crossways. He rarely ever reads labels on bottles or follows directions for safe construction of homes or safety in his work. As time goes on, a few of these adult safety illiterates will learn to read signs and signals and obey them; others will get killed, and some will live to a ripe old age with the help

of hundreds of safety literates guiding them.

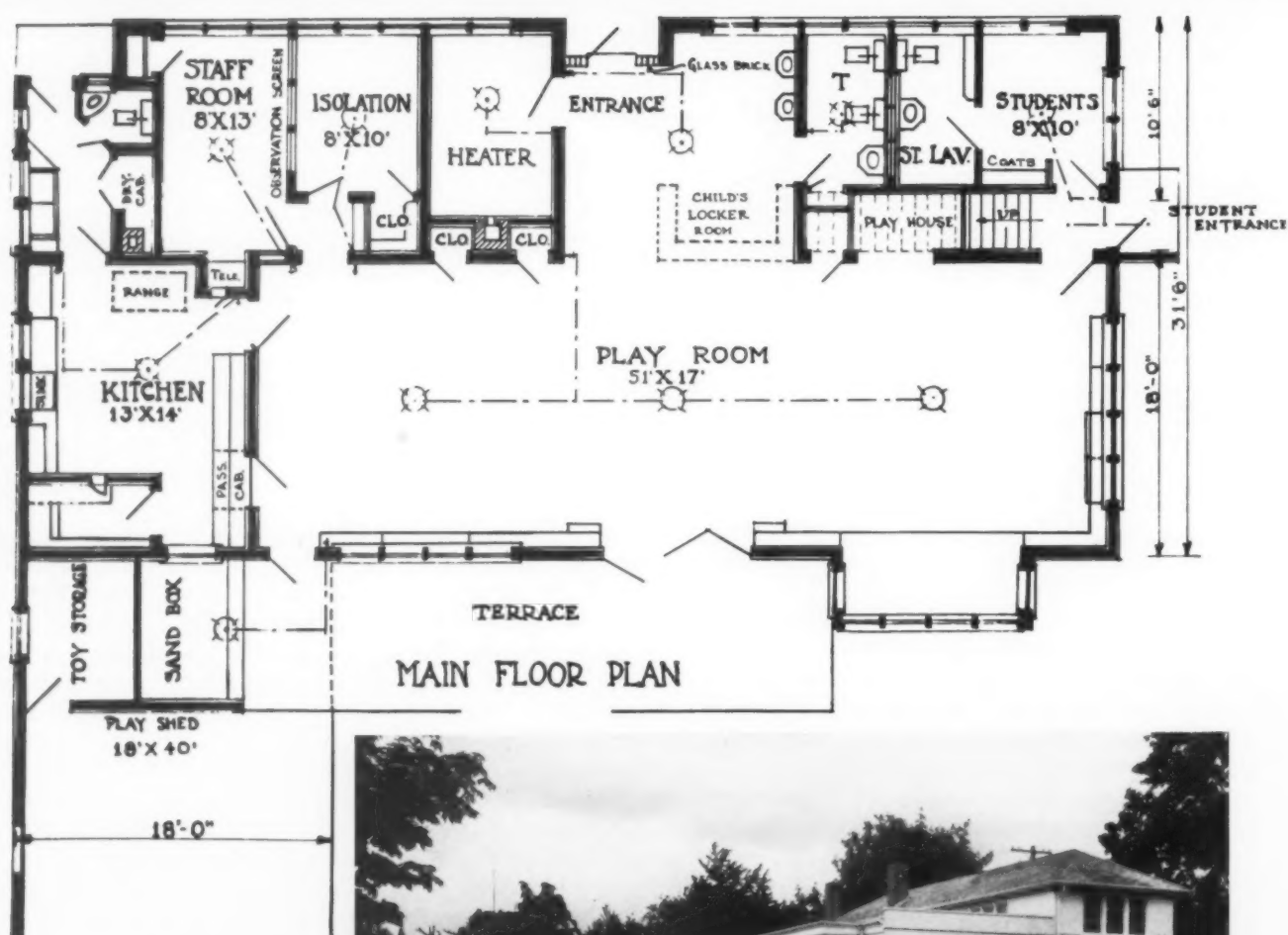
The school's job, expressed tersely, is to reduce the new supply of safety illiterates as rapidly as the community will provide the support. "No brand new safety illiterates" is the slogan for the school.

But all that deals with safety is not safe. The safety movement snowball has become so big that it has picked up in its path some ugly looking debris. There are individuals and interests more concerned with their own selfish advancement and with blocking a rival organization than with service and research in safety education. Such selfishness and stupidity must be eliminated.

If the yearbook "Safety Education" is to be worth the time and energy that members of the commission and the teaching profession consumed in producing it, a wide distribution of copies must be obtained. Larger school systems should have a copy for every school building. Curriculum committees will find it indispensable. Colleges and universities that prepare teachers will need it for their libraries. Superintendents, principals and college executives, all of whom have first responsibility for providing a safe environment for pupils and staff, will find it helpful. Parents and interested citizens will gain from it a better background for safety education work.

Integrate Safety and Citizenship

The yearbook and the check lists and safety education bulletins of the National Education Association provide a wealth of safety education materials. It is the hope of the Commission on Safety Education that the use of these publications will result in integrating safety education with the broad and consuming purpose of the schools to produce good citizens. In 1940 a good citizen can remain neither alive nor good without some knowledge of how to live in an industrial society.



Top: Main entrance and front elevation of the Nursery School at Oregon State College. Center: Main floor plan. Herbert Reeves Sinnard was the architect for the building. Right: Side and rear elevation, showing students' entrance and children's outdoor play shed.



Oregon State's Nursery School

AVA B. MILAM

Dean and Director of Home Economics
Oregon State College, Corvallis

THE nursery school at Oregon State College, established in 1926, is maintained as a laboratory for students in the school of home economics. In July 1938, the converted dwelling which had been used for the twelve years had to be razed to make room for the new chemistry building. It was found that the adequate reconditioning of the building to which the nursery school was assigned for removal would require a considerable sum. The college administration decided, in the emergency, to build an economical frame structure designed specifically for use as a nursery school.

The site available for the new structure has many advantages. It is near other buildings used mainly by women students, including those for home economics, physical education for women, home management and one of the women's dormitories. It faces a quiet side street and has well-established plantings affording protection from the wind as well as screening for the outdoor play area. It is adjacent to an area that may be used for a second nursery school when that is needed.

In designing the new building, accommodations were desired for 18 children and for the staff. The nursery school staff consists of a director and two or three assistants. The children come at 9 o'clock and leave soon after lunch is over. Lunch is served to students who are members of the class in nursery school education as well as to the staff and the children. A housekeeper is employed to prepare and serve the lunch and to take care of the building.

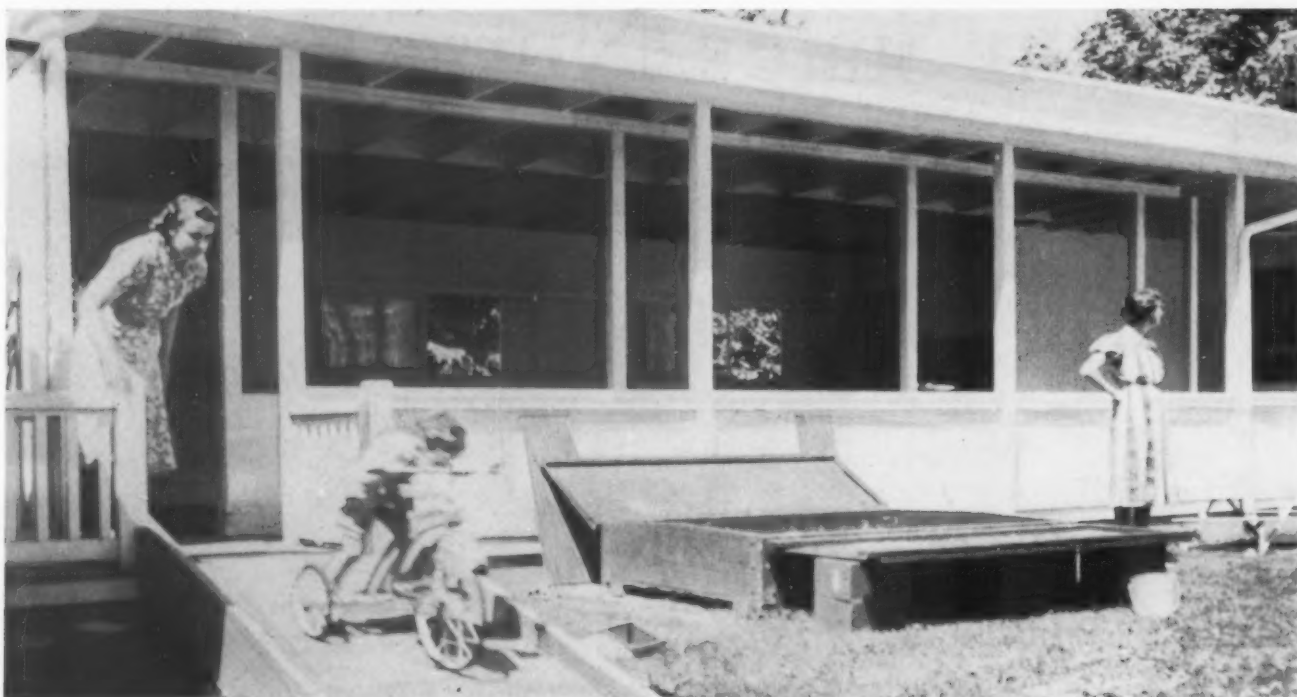
Procedure in planning the nursery school was as follows: a list of requirements was prepared by the nursery school director, with the assistance of members of the faculty of the school of home economics and sketch plans for the building were made.

Plans for the dimensions, arrangement and fittings of storage areas



Above: The bay window. Note low window sills, raised floor and grille for cold air return. Right: The stairs leading to the rest room. Note the double hand rail for children and adults. Another indoor playroom also is on this floor. Provision was made for student observers to watch the activities in the combination playroom and dining area below by means of a row of drop doors on this floor. Below: The main room. At upper right near the ceiling are "peep holes" for observers.





The play shed, salvaged from a former nursery school, was set 9 feet from the main building and at right angles to it. The space between is utilized for the storage of play materials used in the shed and for the concrete sand pit.

were based upon inventories of articles owned by the nursery school or contemplated for purchase and upon information concerning nursery school routine. Each article or group of articles was assigned to a specific storage space and a key showing the contemplated uses of the various areas was prepared for the guidance of the nursery school staff in putting articles in place.

The accompanying floor plans and illustrations show the design of the nursery school as it was worked out by the architect. The size of the main building is 32 by 66 feet. The play shed, which was salvaged from the old nursery school, was placed at right angles to the main building, with the open side to the east.

The main entrance, children's locker room, main play area and dining area were combined into one T-shaped room. Lockers for children's clothing were used to form a partition, 48 inches high, between the locker room and the main play space, thus making it possible for observers to watch the process of receiving the children without entering the area.

The goal of a "simple, sun-filled" room was reached in the combination dining-play area. This room is 17 feet wide and has a frontage of 51 feet on the south. Close connection with the outside play area is provided by folding doors. A break in this long expanse was provided by a bay, 4 by 10 feet. The cement

terrace extends from this bay to the play shed, a distance of 36 feet.

The north side of the long, low building was utilized for students, staff, isolation rooms, toilets, heater room and service room. The ceiling of this section is only 8 feet high, while that of the main room is more than 12 feet. To accommodate the children's rest room and second indoor playroom, a second story was built over the lower section. The roof over the main room is flat and it is expected that eventually a deck covering will be added so that children can play there.

The building was placed on a concrete slab. It is equipped with an oil-burning, air conditioning unit. Warm air is supplied through openings near the ceilings, returning through channels between the concrete slab and the wooden floor above it. The heater room is centrally located.

For finishing, wood was used throughout. The exterior is covered with shakes, painted white. The lower 4 feet of the interior wall is covered with plywood, enameled. Above the 4 foot level, sheets of insulating material were left unfinished to form the wall covering. The same material was used on the ceiling. The type of insulating material used was chosen partly because of its

sound-absorbing properties. Linoleum was used as a floor covering throughout the lower story.

Windows are fixed, except the minimum needed for ventilation. Second story windows tilt inward to ensure safety.

In the main room, open shelves along the south and east provide storage for articles children should be able to reach. From the design standpoint, it was desirable that these should be only 12 inches wide. Three sections were made 15 inches wide, the "doll trough," a cabinet for the plywood sheets used on the easels and a section for larger toys.

The bay has a raised floor and is useful for block and other projects. The floor of the bay also brings the windows within reach of children, permitting them to watch outside activities.

A door on the dining room side of the serving cabinet forms a passageway between the kitchen and the dining area. There are two serving counters, one 38 inches high for the use of adults and the other 22 inches high for the use of children.

A ventilated food storage room, 4 by 7½ feet, adjoins the kitchen; a draft-stop on the connecting door prevents the cooling of the kitchen floor. An opening above the mixing center gives access to shelves in this

storage room, thus providing cool space to supplement the refrigerator.

The service room is equipped with laundry trays, a counter for receiving groceries and a drying cabinet. The drying cabinet is connected with the furnace, making it possible to dry children's clothing rapidly.

Student needs are met by means of a separate entrance, small cloak-room and toilet room. In the 4½ feet between the floor of the children's rest room and the ceiling of the main room, provision was made for observers by means of a row of drop doors placed at a height of 27 inches. An observer can come in the student entrance and, after leaving her wraps in the student cloakroom, go directly upstairs, open one of the drop doors, seat herself on the stool immediately beneath it and watch the activities of the children below. The drop door serves as a writing table; it is obviously not possible to observe all activities or to hear all of the children's comments, but this device materially relieves congestion resulting from large groups of observers.

Openings were placed in the walls of the children's toilet, the isolation



Above: The doll trough and adjacent storage. A continuous strip above the shelves forms a place to display colorful books and mounted pictures.



Above: A 6 inch dado set at a height of 32 inches provides a place for hooks needed near the lavatories in the children's washroom. Note cold air grille.

room and the dining end of the main room to permit observers to see without being seen. These openings were covered on each side with a layer of fine wire screening painted on one side only.

The staff room is near the kitchen. The telephone is located on the common wall between the two rooms with an opening on the kitchen side, permitting the cook to take telephone messages.

The street and the sidewalk in front of the main entrance were curved inward, providing space for automobiles to stop under a portecochere in case of rain and making street parking unnecessary.

The play shed was set 9 feet from the main building. The space between was utilized for the storage of play materials used in the play shed and out in the yard and for a concrete sand pit.

Little has been done as yet to meet the requirements set for the playground, other than to place the playhouse, climbing apparatus, sand box and teeters and to put up the fence. The remaining items are slated for early attention.

Progress in Elementary Schools

(Continued from page 24)

ized and changed its curriculum content and methods of teaching in the light of this knowledge. Especially are they effective in the primary grades. When one compares these grades with those of a half century ago the results are miraculous.

In 1836 McGuffey published his first reader and in less than a decade his entire series of five historical textbooks was completed. Look at one of these books; compare its mechanical makeup, illustrations, content and teaching organization with any of the readers in use today and you will see in this field the evidences of improvement.

Evidences of Improvement

Not only are the textbooks and reading materials improved but methods of teaching have been correspondingly developed. The reading growth of children in the lower grades is little short of phenomenal. Reading is no longer considered as a subject apart. Every teacher is a teacher of reading and has to be familiar with the basic habits, skills and attitudes essential for intelligent growth. The stage has long since passed where word recognition was the goal and when meaning and interpretation were incidental.

Greater progress has been made in the so-called tool subjects than in those whose aims are growth in knowledge and appreciation. But here the schools have not been marking time. The old history, with its emphasis upon wars and politics, arouses memories of dismal hours of memorizing names, places, dates and events without meaning and without interest. The sterility and academic formalism of history teaching developed positive antagonisms where it was supposed to arouse interest.

So it was with geography and science. These subjects came into the schools later and before either teachers or textbook writers understood the possibilities and limitations of such factual material. It was knowledge in the raw and all too often "learning was neither preceded by appetite nor followed by digestion." Study was externally moti-

vated. John Muir described his early teachers proceeding as if the first law of memory read: "There is a close connection between the skin and the memory and a vigorous stimulation of one has a most wholesome effect upon the other."

The elementary school has been accused of having too many fads. Generally, the complainants are not sure as to what they mean by a fad but commonly they refer to music, art, homemaking, manual arts, plays and games, or what on the secondary level are called extracurricular activities. The enrichment of the school program is generally approved. Parents are nearly always enthusiastic about the opportunities that their children have as compared with the limited curriculum of their own school days. Without neglecting the "good old fundamentals" the elementary school thus finds ways and means to make learning more significant and vital.

Probably the greatest progress has been in the field of health. What with doctors, dentists, nurses, health clinics, physical training, safety education and the growth of athletics, games and hikes, the health of school children is enormously improved. Some day the educational historian writing of this period will point to the saving of little children from the physical results of our economic ignorance and stupidity as one of the proudest achievements in a magnificent record.

This review is true in all elementary schools, including the one room rural school as well as the best of the most progressive schools of the most wisely directed city system. The difference has been one of degree, not of kind. The rural school has not been insulated from progress and in some instances has done an even better job than those that are theoretically better situated. I beg of you not to feel too sorry for the rural school for it, too, has been "going to town." There have been too much defeatism, too ready acceptance of inferiority, too much faith in administrative reorganization, too much sentimental concern

for this supposedly underprivileged child of elementary education. In a period of agricultural reaction and despair the rural school has given a splendid account of itself. Although the farmer has had to eat the "grapes of wrath," his schools have gone marching on, even though slowly.

The transition from the old to the new has resulted in some losses and every change has not been a synonym for progress, but the net result amounts to little less than revolution.

It Has Been Free to Grow

The elementary school has evolved because it has been relatively free from external pressures and controls. Growing naturally, it has been able to make adaptations to new conditions without waiting for permission from some hierarchy of subject minded specialists. It has been unhampered by college entrance requirements and it has never been policed by arrogant accrediting agencies. It has had to submit to legislative prescription, it is true, but within the framework of law, social organization and public opinion it has been a free school.

A second reason for the successful adaptation of the elementary school to the purposes of general education is the acceptance of supervision as an integral part of its organization, not as something imposed by higher authority. The days of formal inspection have long since passed. The elementary school has developed a sympathetic, cooperative, supervisory program for the improvement of learning and teaching. The supervisors lead teachers, help pupils and inspire study by both. The elementary teacher has never had a chance to have her head turned by too much attention, so she keeps an open mind and is willing to cooperate. For her cooperative supervision is not accessory but intrinsic.

A third and most important factor in the evolution of the elementary school is the education and point of view of teachers. They are trained to teach children, not subjects; to deal with life situations as well as with books. They are free to cut across subject matter lines, or in modern jargon, to integrate knowledge. They do not have to preserve academic traditions.

The Convention News

March 1940

Convention Shorts

- The best public relations are, after all, personal relations.

- A large part of education today is not defensible as far as 80 or 90 per cent of the population is concerned.

- North Carolina now transports more pupils than any other state. In 1938-39 some 318,000 North Carolina children went to school by bus. The cost per pupil was \$6.95 for the 160 school days of 1938-39. School buses are purchased in lots of several hundred.

- Too much of our thinking is spun out indefinitely without being put to work in real situations.

- In Baltimore high schools, superior pupils may receive as much as one year of college credit for extra work done in high school.

- Five deans of women stepped into an elevator. The other occupant was a man. Said one dear lady: "Wasn't that a splendid talk! So inspiring! It just took me to the clouds!" "It was, indeed," chorused the other four. At the fourth floor the enthusiastic lady left. The others looked at one another and one murmured: "Triple!" The silent three breathed with great relief and satisfaction.

- The best estimates available seem to show that about 900,000 boys and girls are deprived of high school education because of lack of money.

- Schools should teach about health, not about disease; about effective living and not about medicine.

- One third of the children of the United States are beyond the reach of any well-stocked library.

- Federal aid should be extended through state departments rather than to local units direct.

Administrators' and 52 Other Professional Organizations Swell Attendance to 15,000

By Arthur B. Moehlman

The seventieth annual convention of the American Association of School Administrators met in St. Louis February 24 to 29, surrounded and at times almost equaled for attendance at individual meetings by 52 other professional organizations of national scope. In addition, 23 national professional committees also held one or more meetings. The total attendance, beginning with the association of teachers' colleges and science teachers on Thursday, February 22, was well in excess of 15,000. Hotel accommodations were strained and many of those in attendance were quartered in apartments and small hotels at least 3 miles from the central auditorium.

The theme topics of this huge meeting were opened in the 11 general sessions and then carried over for group discussion and clinical analysis into a series of afternoon discussion groups in which small conferences made it possible for different members to contribute directly to the enrichment of the program.

Particular emphasis was given to an overview of the contributions of the schools
(Continued on page 39)

Don't Eliminate the Newest Services in Retrenchment Period Is McClure's Plea

To eliminate modern services like kindergartens during a period of retrenchment is to start a vicious downward spiral for the schools. This is the contention of Supt. Worth McClure of Seattle.

With the idea that the newest services to be established should be the first to be cut during hard times, Mr. McClure has no sympathy. By eliminating the later forms of service—those that have been added to meet modern needs—we set the school service back a generation.

The result is loss of public confidence in the schools and, consequently, loss of support, in Mr. McClure's opinion.

Seattle was one of the cities that made kindergarten opportunity city-wide during the depression. Citizens voted a millage for building purposes last year when the politicians were unanimous in the opinion that the public would reject it.

School Building Council Says \$500,000,000 Is Annual Need for Plant

The Saturday panel discussion of the National Advisory Council on School Building Problems, after a three hour discussion of building needs, agreed on the following points:

1. The annual need is for at least \$500,000,000 worth of school buildings and equipment.

2. Extensive state surveys are necessary to produce economical and well-located buildings.

3. It is inadvisable to incur further debt for buildings; a pay-as-you-build procedure is recommended.

4. Future school plants needs should be financed by the federal, state and local governments with the school district providing for upkeep and modernization and with the state and federal governments sharing the expense of capital improvement.

5. All federal aid to school building should clear through the state education authority instead of going directly to the district. This will result in better locations and will prevent overbuilding.

6. The general requests for federal aid to education include so many controversial issues that the possibilities of obtaining it are exceedingly slim.

7. Federal aid for school plant can be obtained since it involves only an expansion of the current federal public works and roads policy. The control of the disbursement of these federal aids should be through the Public Works Authority.

The following resolution was passed at the luncheon meeting:

"The National Advisory Council on School Building Problems feels that the first step toward providing adequate educational programs in the public schools of the country is to provide adequate and properly located school plants.

"That in order to provide adequate plants for each state and community there should be furnished: (a) accurate and continuing inventories of existing school plants; (b) long range plans for reorganizing school plants involving con-

(Continued on page 38)



• Carroll R. Reed, new president; Ben G. Graham, retiring president; Paul R. Mort, Columbia; E. O. Melby, Northwestern.

Equalize Educational Opportunities If Democracy Is to Endure: Oxnam

Will the hundreds of thousands of children who are to leave our schools in the next decade believe in democracy for tomorrow?

If we equalize educational opportunities, they will believe in freedom and our free state will survive.

If we do not, Bishop G. Bromley Oxnam of Boston makes no predictions, but he remembers the robot states of Europe where the party or the dictator in power has the right to determine the philosophy to which every individual must give assent.

"Must man be shackled politically in order to solve his economic problem?" was another question put by Bishop Oxnam to the school administrators.

"The political freedom, which is the heritage of America, must be used by the contemporary American in sacrificial crusade to the end that the political ideal of democracy may become an economic reality," the Sunday vespers speaker declared.

"Life, liberty, the pursuit of happiness must become real in bread, in health, in housing, in music, in art, in literature, in flood prevention, in conservation, in education.

"The American believes it is possible to turn to science on the one hand and to religion on the other and to create a society in which the sacredness of every life is recognized and everyone finds opportunity for the fullest self-expression of which he is capable."

Bishop Oxnam's proposed sacrificial crusade will not end until world law and order have supplanted international anarchy.

What we must do, in his opinion, is to develop a synthesis whereby the creative initiative that has flowed from American individualism may be conserved and the benefits that lie in collective action appropriated.

Prefer to Postpone Academic Teaching for at Least 1½ Years

A seven year case study of the postponement of formal instruction by Mabel Vogel Morphet, director of research, Skokie School, Winnetka, Ill., and Carleton Washburne, Winnetka superintendent, was reported to the American Educational Research Association.

These two conclude that postponing systematic academic instruction until at least a year and a half after children have entered school and substituting for it a large variety of educational experiences whets children's appetites for learning and results in increased progress throughout the child's elementary school life.

Finds Way to Silence Critics Who Charged Communistic Teaching

Fear that the schools are communistic in their teachings is the most prevalent cause of public ill will toward present day education.

So it was found in a community in New York State, according to Supt. W. H. Pillsbury of Schenectady.

To combat this mistaken notion, one New York school administrator whose schools had been thus attacked by a powerful economic group sent the whole set of social studies textbooks to a great industrialist for critical review.

Result: The industrialist wrote: "The books are better than I had reason to expect from any source. I recommend their continued use."

When the local papers published that correspondence, there was no more Red baiting in the schools of the community.

Friendship Stands in Way of Education Ever Becoming Science

Valuable as science is to education, education itself can never become a science.

So declares Karl W. Bigelow, director of the commission on teacher education, American Council on Education.

Education cannot be a science because its essential elements are human. Boys and girls, teachers and administrators are not materials to be manipulated and controlled. They are unique persons, dynamic in nature and possessed of purposes that change with changing experience. Their proper relationship to one another is the relationship of friendship.

Friends do not seek to use one another but to work together for the common good, Doctor Bigelow holds. Emotion as well as intellect contributes to their mutual understanding. That understanding may be aided by data capable of quantitative expression, but it goes beyond such data. Friendship assumes equality and breeds the sort of freedom that satisfies because it is not at the expense of others.

It is Doctor Bigelow's conviction that educators who agree on general ends but still dissipate their energies in quarrels over detailed objectives are victims of divorce, the divorce of theory from practice.

Too much of the schoolman's thinking is spun out indefinitely without being tested by being put to work in real situations.

Studebaker President Thinks Automotive Industry's Safety Funds Are Well Spent

What the automotive industry is doing to promote highway safety was told the A.A.S.A. delegates by President Paul G. Hoffman of the Studebaker Corporation.

The magazine article "And Sudden Death" by J. C. Furnas, published in 1935, prompted the Automobile Manufacturers Association to study the safety problem. The resulting investigation showed that there were two limiting factors to the future growth of the automotive industry: accidents and congestion.

A well-organized safety program, the association decided, could reduce the accident rate one third or more within five years and another one third within twenty years.

As it has worked out the accident rate has been cut almost one third in four years. The \$1,600,000 distributed by the motor car manufacturers to universities and civic organizations to develop new

technics and to train personnel to supply these technics has helped to bring this reduction about, Mr. Hoffman is convinced.

The accident rate, which in 1935 was 17.4 per hundred thousand vehicle miles, is now 12 per hundred thousand vehicle miles.

Interpreted, the foregoing figures mean the saving of 29,000 lives, 1,000,000 fewer personal injuries and a saving of a billion dollar cash loss, including property damage.

The Studebaker president also made a plea for education and business to make common cause in the preservation of our democratic institutions. By this, he meant the survival of a free market.

In Italy, Germany and Russia, he declared, regimentation of business came first and a crack-up of civil liberty and attacks on religious freedom followed.

Teachers' Colleges Need Fewer Freshmen and Wider Social Contacts

Teachers' college students come largely from small towns or the country. They need to develop social poise and to have wider experiences and the broadening influence of association with others who have many life interests and varied occupational outlooks.

This is the view of Grady Gammage, president, Arizona State Teachers College at Tempe, who addressed the American Association of Teachers Colleges at its two day meeting in St. Louis.

President Gammage doesn't believe that the trend in teachers' colleges toward the general college will weaken teacher education. Rather, he feels, that it will bring a wider emphasis, wider contacts, wider experiences, wider service to the public and wider drawing power for the teaching profession.

Probably 90 per cent of the teacher training institutions employ no means of selective admission other than the traditional elimination of the obviously unfit, according to President W. J. McConnell of the North Texas State Teachers College, Denton.

Establishment of quotas for freshmen, formation of future teachers' clubs as a means of guidance and selection of candidates through a cumulative record are widely recommended steps, President McConnell stated.

Charles V. Park, librarian, Central State Teachers College, Mount Pleasant, Mich., suggested that smaller school systems which depend on part-time teacher-

librarians look to the teachers' college to supply this training. Ninety per cent of our school systems, he said, are too small to afford a full-time librarian. Preparation of a part-time teacher-librarian offers both a challenge and an opportunity to the teachers' college.

Three Ways Schools May Help Young People Adjust

Young people need more help in making successful life adjustments than the school is providing.

Here are four of their needs, as pointed out by Shirley A. Hamrin of Northwestern University: (1) opportunity for emotional development (2) opportunity to make friends; (3) aid in vocational adjustment, and (4) constructive thinking on the individual's relationship to present day problems.

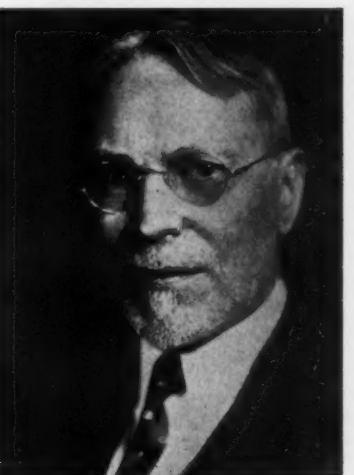
Three ways in which schoolmen must help youth in solving these problems are given.

1. Help young people to get a better understanding of themselves as prospective workers, through reorganizing the curriculum, reemphasizing social studies and individual counseling.

2. Give pupils a more realistic picture of the occupational world. Exploratory vocational experiences are needed for successful adjustment.

3. Bridge the gap between school and work by better placement services and by a genuine follow-up of persons after they leave school.

The secondary school must give more attention to current social and economic problems and must tailor its curriculum to meet the individual needs of the pupils.



• John K. Norton, Columbia; J. A. True, Council Bluffs, Iowa; Edgar G. Doudna, Madison, Wis.; Charles H. Judd, N.Y.A.

Says Part-Time Work Must Be Given Unemployed Youths by Public Agencies

Essentials of the American Youth Commission's program of action regarding employment, education and health for youth were presented by Floyd W. Reeves in an address before the National Association of Secondary School Principals.

Pointing out that one third of the unemployed workers in this country today are young people from 15 to 24 years of age and that in an ideal economic system this gap would be closed by absorbing youth into private employment, Doctor Reeves suggested that every young person who does not desire to continue in school after 16 and who cannot get a job in private enterprise should be provided, under public auspices, with employment in some form of service.

This work would not be full-time and it need not be highly paid in view of the fact that training and a part-time study program would be given with the work. It is estimated that the expenditure per youth need not exceed \$400 per year.

Better educational opportunity would be provided, Doctor Reeves believes, through better financed and more ably administered schools. The first step is to combine small independent school districts into larger and more effective units.

Too Many Agencies Weaken System

One of the chief weaknesses of the system of vocational education, guidance and placement is the multiplicity of agencies undertaking these functions, the speaker stated. Doctor Reeves would see these agencies combined into one center in each community where youth could go and be assured of efficient occupational adjustment service.

Reeves stated that the American Youth Commission is convinced that America needs a health program organized on a scale never before attempted in this country. An immediate necessity, he pointed out, is an adequate health program for all youth in the schools. This should be a positive thing and go beyond the mere absence of illness. Another solution, he believes, would be the introduction of socialized medicine.

Although the commission recognizes recreation as one of the major aspects of the youth problem, it has not as yet issued any former recommendations relative to it. To this problem Doctor Reeves contributed some of his own conclusions, pointing out that the

boundary between recreation and education is difficult to discern.

"This is one important reason why educators should consider seriously the obligation that rests upon them to accept some responsibility for community recreational leadership. This is an urgent matter especially for consideration in small town and rural school districts where the board of education is the only local public authority now conducting any recreational activities," he added.

Carter Good Reviews Points in Year's Educational Progress

Major points of educational progress during the last year were reviewed by Prof. Carter V. Good of Teachers College, University of Cincinnati, before the National Council of Education.

Among the accomplishments enumerated were the following:

1. Democratic leadership in school administration, resulting in the formulation of better policies and the recruitment and development of a higher type of teacher.

2. Equalization of educational opportunity through federal and state support, yet retention of flexibility in policy and procedure to adjust to local conditions.

3. The concern of educational workers over the adjustment of youth to industrial society.

4. Unusual activity on the part of psychologists and educators interested in heredity and environment as they relate to the development of youth.

5. Application of the findings of research to the improvement of present educational practices. These surveys have utilized the "deliberative" approach of "thinking through" the problem at hand rather than relying exclusively upon a statistical or factual survey of conditions.

6. The development of a sound program of democracy to combat the intolerance that has arisen during the last decade.

Broadcast Moved to St. Louis

The popular radio program, "America's Town Meeting of the Air," ordinarily presented from New York City, was broadcast Thursday evening from the stage of the St. Louis Municipal Auditorium. The program's moderator, George V. Denny Jr., was in St. Louis to direct the program.

Goodier Tells Why States Have Not Consolidated Districts More Rapidly

Why do we still have so many small elementary and secondary schools? Why haven't the states moved more rapidly to establish efficient and economical administrative units through consolidation?

Floyd T. Goodier of Illinois State Normal University has made a fairly long and careful study of this situation. His conclusions reveal the following combination of causes:

1. A failure to realize the benefits to be derived from the larger units.

2. An unwillingness to have the source of authority moved from the immediate locality.

3. The prospect of increased school taxes. This is possibly the most important factor in the entire problem. An enriched course of study brought about through consolidation may cost more than the program carried on in the separate districts before consolidation.

4. Parents frequently object to having children transported to school in a bus, particularly small children who must be gone all day.

5. Weaknesses connected with certain reorganizations already consummated. Many central districts are still too small to operate modern schools. Consolidation also has resulted in the formation of favored districts here and there, favored in taxable wealth and in a population with progressive ideals in education. Hundreds of children living in regions outside the borders of these districts are even worse off than before separation from the larger and more prosperous area. Thus, the principle, while democratic in conception, has not proved democratic in actual practice.

Barbers Demand Evening Course and They Get It

Two barbers in a small town on their own initiative took a course in science for barbers. Their increased knowledge soon brought increased profits.

The news spread about the town. Other barbers were envious. They approached the public school as a group and asked that a similar type of course be given in their own town. The school then arranged a trade extension course for these full-time employed adults.

R. B. McHenry, adviser in industrial training, N.Y.A., cites this story as an example of what many small towns can do toward helping adults reach a high level of accomplishment.

Case Outlines Decentralized Organization for Community of 25,000 Population

In a community of 25,000 inhabitants, the only staff necessary for the proper administration of the schools is the superintendent, his secretary, the bookkeeper, a purchasing agent and a maintenance man.

So holds R. D. Case, superintendent of schools at Salinas, Calif.

With the foregoing assistance, the school administrator will be able to handle everything that is his immediate concern, in Mr. Case's opinion.

Mr. Case would do away with such staff members as the supervisor of elementary education, supervisor of secondary education, curriculum assistant, music supervisor, art supervisor, physical education supervisor, library supervisor and others of that ilk.

To get rid of these persons the entire school organization will have to be revamped but, in Mr. Case's opinion, such a step will repay the costs in effort necessary to make such a reorganization.

Should Eliminate Supervisory Jobs

In such a setup, the superintendent will himself assume the duties of supervision of elementary and secondary education and the functions of the other staff members eliminated under the reorganization plan will be taken over by the principals in charge.

Costs are cut by putting supervisors in actual teaching positions. With these costs removed there is more money for the actual teaching of the children.

Moreover, the transfer of special teachers from supervision to the teaching of their special subjects elevates the standards of pupil achievement. The child is no longer taught by a teacher untrained and disinterested or even bored but is in the hands of an expert.

The expert, Mr. Case declares, not only does a superior teaching job but she has an opportunity to discover and develop innate talents never recognized by the teacher untrained in the special field.

Under such a system of organization, the principal is a bigger man. He feels no restraint. He organizes his faculty into committees to study and solve the problems of the school. He personally supervises the operation, maintenance and minor alterations and improvements in the school plant.

A happier faculty is another result of establishing local autonomy in each individual school, Mr. Case points out. The happier and less restrained personality of the teacher is reflected in

the teaching. The children become the beneficiaries.

Such a decentralization plan will cut costs and bring about satisfaction on the part of the taxpayers.

Taxpayers don't complain when the tax rate goes up to meet emergencies and then comes down afterward. But they are inclined to be suspicious of school administrators, fearing—and often justly so—that if the tax rate is once increased there will never be a decrease, Mr. Case asserts.

Small Cities Should Adopt the Community School Unit

What are the general principles that point the way smaller cities need to go in the development of satisfactory school units?

Floyd T. Goodier of Illinois State Normal University enumerates three:

1. The smaller cities must consider the strictly rural schools as a part of the problem. The educational needs of urban centers and neighboring rural areas should no longer be considered separately.

2. The new administrative school unit of the smaller cities should generally take the form now known as the community school. Each of these community schools should be located in a village or small city and should provide schooling from kindergarten through the twelfth grade for a region or area in which the people already are bound together by economic and

Would See Education Put on a Plane Justified by Its Social Importance

No better way to "save democracy" exists than through excellent teaching

The crying need of education is for teachers of understanding and ability, who are skilled in the art of teaching.

Deploping the fact that with a surplus of teachers policies and practices have not been inaugurated to up-grade teaching personnel, Supt. James P. Vaughan of Chisholm, Minn., cited some processes for eliminating the unfit from teaching.

Raising the standards of admission to teacher training institutions will not alone suffice, he believes. There must be a more rigid selection, especially as to personality traits. This process of elimination should continue throughout the preliminary years of teacher training.

Problems of employment for merit and continuity in service should be solved in cooperation with the teaching profession itself. Interests of both teachers and society will best be served through a program of long range, coordinated and cooperative planning. Some immediate plan for selective admission and upgrading of personnel is necessary to put education on its proper plane, Mr. Vaughan declared.

social ties. In most cities many additional pupils could be accommodated without any increase in buildings or teachers.

3. In general, schools should seek to be large enough to require at least 40 teachers.

Rural Schools Must Save the South

Southern schools must come to grips with the realities of community living in the rural South, says John E. Brewton, associate director of surveys and field studies, George Peabody College for Teachers.

Three fourths of the children of the South are rural children. In this section there are 1,831,000 tenants, more of them poor whites than Negroes, and they eke out a bare existence. A crumbling cotton economy and a precarious tobacco economy are reducing the people to a state of economic insufficiency.

Yet the South has a superabundance of natural resources, a fertile land and a provident climate. It is possible to build there a great southern civiliza-

tion based on an agriculture developed far beyond that of other sections.

"Let the southern rural school become a center of happy community life, serving the homes, building health, fostering wholesome recreation, recognizing civic needs, encouraging scientific agriculture—and there will come into rural life a new vitality," Doctor Brewton declares.

Southern rural schools will become community schools of social action only when southern institutions for teacher education become focal points of creative effort in educational planning. They must bring about the social, physical, cultural and material development of the people of the rural South.



• Paul V. McNutt, Federal Security Agency; Homer W. Anderson, Omaha; Henry H. Hill, Lexington, Ky.; W. G. Carr, Educational Policies Commission.

School Building Councilmen Figure Annual Need for Plant

(Continued from page 33)

solidation, population studies and trends, location of buildings and transportation; (c) minimum requirements and standards for functional planning.

"That the last five years of federal aid for school buildings has on the whole proved highly satisfactory and that the obligation of the federal government to education can best be discharged at present, partially at least, through continued federal aid for school buildings.

"That such federal aid should be extended only on the basis of long range survey findings and recommendations.

"That such federal aid should be extended through state departments rather than to local units direct.

"That capital outlay for school buildings be financed jointly by the federal government, the state and the local community.

"The National Advisory Council on School Building Problems, therefore, commits itself to the support of a program of federal aid for capital outlay for school building based on principles as outlined above."

The council approved Senator Josh Lee's bill (S. 3340) with some modifications. This measure proposes federal aid to school plant construction over a ten year period to the extent of \$100,000,000, administered through the P.W.A.

The following officers were unanimously reelected: president, Francis R. Scherer, Rochester, N. Y.; first vice president, Raymond V. Long, Richmond, Va.; second vice president, Arthur B. Moehlman, editor of *The NATION'S SCHOOLS*; third vice president, David E. Weglein, Baltimore; secretary, Alice Barrows, Office of Education; treasurer, W. F. Credle, Raleigh, N. C.

Mrs. Corre Is New Head of Vocational Guidance Association

Mrs. Mary P. Corre, director of the occupational research and counseling division of the Cincinnati public schools, is the new president of the National Vocational Guidance Association. She succeeds Rex B. Cunliffe, associate professor of education, Rutgers University.

Other officers are George E. Hutcherson, New York State Education Department, and Mildred Hickman, supervisor of guidance, Cleveland, vice presidents; Roy N. Anderson, associate professor of education, Teachers College, Columbia University, treasurer; Jerome H. Bentley, program director, New York Y.M.C.A., and Vernon S. Stevens, vocational counselor, Western Technical-Commercial Schools, Toronto, Ont., trustees.

Gives Reason for School

The last physical frontier may have disappeared with the buffalo, but today's real frontiers are in the new and expanding fields of industry, health and public medicine, expanding education, communications, redesigning and rebuilding of cities, regional planning, land planning and a thousand of other technical fields.

The reason for the school is to see that these new frontiers are opened as rapidly as we can spare money and people from older fields. Harold F. Clark of Teachers College, Columbia University, announced the foregoing as one of the theses for discussion at the Monday session of the National Council of Education.

Who Should Control Education? Public Opinion, Says Kefauver

Who should control education? What are the issues involved?

These two questions, raised repeatedly in professional discussions, were taken by Grayson N. Kefauver, dean of the school of education, Stanford University, as a thesis for discussion before the National Council of Education.

"Public opinion controls education. No person or agency has a permanent control of education. Boards of education and school administrators may push the buttons but they will be compelled to conform to this controlling public opinion or else their successors will be selected because of their agreement with the desires of the people.

"One of the issues involved is stability. Educational policy will be stable if society is stable.

"Professional educators should not want to operate independent of the desires of the citizenry but should control by leadership."

Backward Pupils Need Best Teachers

Finding the right teachers for backward groups of children is difficult, Supt. Paul Gossard of Bloomington, Ill., points out. These teachers must be sympathetic, must have something of the "missionary spirit," must have restful personalities and should come from the ranks of the very best teachers in the system, he maintains.

Superiority Complex Resented

The gifted pupils in a junior high school in Cleveland go to a near-by senior high school for special classes. Recently a large number of less distinguished pupils in the junior high ganged up on the "superior" pupils and hazed them unmercifully, it was stated at St. Louis.

Sees Uncle Sam as Greatest Question Mark on Diplomatic Front of World

The largest question mark in the world's diplomatic alignments is the United States.

So thinks James G. McDonald, chairman of President Roosevelt's Advisory Committee on Political Refugees and president of the Brooklyn Institute of Arts and Sciences. Doctor McDonald talked before the fourth general session of the A.A.S.A. convention on "The Vital Diplomatic Fronts."

"Though our people are overwhelmingly unsympathetic to Hitler, they are almost in the same proportion determined to stay out of the war. But can they?"

"The history of the months from November 1916 to April 1917 does not support those who contend that the United States will under no circumstances become involved," the speaker asserted.

Britain and France are cooperating more closely today than they had succeeded in cooperating by the end of the third year of the World War, according to Doctor McDonald. In diplomatic matters and in the vital affairs of trade and

finance, these two allies are working almost as a single unit.

On other diplomatic fronts affairs are more mystifying. At the right moment and when the best price can be procured, Mussolini may throw in his lot with the western allies. But Mussolini, like Hitler, it must be remembered, is the arch foe of democracy and connives at the disintegration of the French and British empires.

The German-Soviet alliance does not necessarily ensure a prolonged collaboration between Moscow and Berlin, nor does the war in Finland preclude some working arrangement between Moscow and Paris and London, Doctor McDonald declares. Much will depend upon whether the war in the North is to be fought to a conclusion or is compromised.

Japan is trying to follow the precedent of its actions during the World War when it made large gains without comparable risks. The attitude of Tokyo will be determined in considerable part by the policy of Soviet Russia and by that of the United States, he believes.

Allied Organizations Swell Attendance

(Continued from page 33)

as opposed to the frequently heard "what's wrong," to safety education, to radio and to the superintendent of schools.

In the meetings of the National Council of Education, Dean Grayson N. Kefauver presented some well-balanced assumptions concerning the relation of the teaching profession to educational policy and the desirability of maintaining control close to the people. A particularly attractive social interpretation program was presented by the School Public Relations Association.

The American Educational Research Association offered two symposiums, the first related to an evaluation of appraisal technics and the second, to the effect of administrative practices on the character of the educational program. The National Advisory Council on School Building Problems contributed a widely attended panel discussion on school building needs.

At the vesper service that marked the opening of the convention on Sunday afternoon the St. Louis a Cappella choir sang and Bishop G. Bromley Oxnam of Boston spoke. Honorary life memberships were presented to John W. Carr and Edwin C. Broome, former presidents, and to Dr. John W. Withers, long-time dean of the school of education, New York University. In the evening 3000 boys and girls of the St. Louis public schools presented a musical pageant in 13 episodes

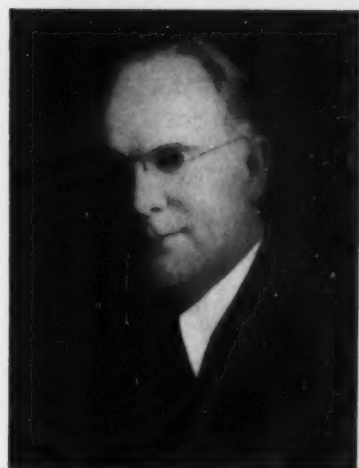
entitled "Musica Americana," which told the story of musical development on this continent.

The Monday morning program considered "What Is Right With the Schools," featuring Dean F. T. Spaulding, Edgar G. Doudna and Willis A. Sutton. The evening program brought the Detroit Schoolmen's Chorus and an optimistic picture by Paul V. McNutt of the future of education during the forties.

The administrators produced not only an excellent yearbook on safety education for the Tuesday meetings but for good measure three syllabuses on safety topics, teaching units and visual aids for teaching safety. Supt. Otto W. Haisley presented the report of the committee on the status of the superintendent and Dorothy Canfield Fisher spoke on "The Children's Crusade for Children."

The eighth general session on Wednesday was devoted to a dramatic interpretation of the Educational Policies Commissions' report on "The Purposes of Education in American Democracy." This four part musical pageant was presented by the school children of Clayton, University City and Webster Groves, Mo.

The Thursday morning session was devoted to possible improvements in the elementary schools and the tenth general session considered education for national defense and a strong appeal to keep America out of the war.



• Worth McClure, Seattle; F. T. Spaulding, Harvard; W. C. Reavis, University of Chicago; Dr. Harold Benjamin, University of Maryland, dean of education.

Displays of Manufacturers Feature Safety, Color, Function and Design

Good attendance marked the opening of the St. Louis exhibit. No sooner were the doors of the Exposition Hall of the Municipal Auditorium thrown open than visitors began to throng the booths of the 230 exhibitors. From that time on until the closing the aisles were crowded.

There was much to see, all of it effectively presented. In many instances the story was graphically told by means of photographic murals done in color. Revolving stands showing various models attracted the eye, causing the passer-by to stop and ask questions. In other exhibits comfortable chairs invited the visitor to rest while he learned.

Some idea of the size of the big show is indicated in the opening remarks of James A. Campbell, president, Associated Exhibitors of the National Education Association: "It represents an outlay of more than \$300,000 on the part of the exhibitors. . . . Very nearly 1000 persons trained in their respective lines are on duty in the 385 spaces provided."

As in former years the book publishers represented the largest individual group of exhibitors, running to a total of 78. Incidentally, practically every one of these had something to show on the subject of safety. Safety education, in fact, played a prominent part

in the exhibits as well as in the supplemental meetings. Much interest was evidenced, for example, in a dual control driving car designed to teach adolescents safety on the road.

Several manufacturers displayed their equipment as in actual use. What to all appearances was an ideal library layout revealed the latest designs in shelving, tables and chairs. In another section of the hall was a laboratory setup arranged to show the unique features of the design.

Among those products that won notice was a markable, washable wall map for classroom use. A shower unit containing five stalls, making necessary only two sets of pipes, for hot and cold water, was interesting because of its simplicity and, therefore, is well adapted to small schools.

While on the subject of washing, another device featured in one of the exhibits assures an abundant shower of warm water on the hands by stepping on a foot pedal. A plunger easily pushed by the smallest child provides the soap. It was generally decreed to be 100 per cent sanitary.

Some lines were shown for the first time; the majority, already familiar, were displayed in brand new settings. No wonder that the response was so enthusiastic.

Tells How the Teacher Can Make His Position Secure

What is the best way for a teacher to promote her own security?

Harold F. Clark, professor of education, Teachers College, Columbia, has the answer: Develop a type of education that functions better in the lives of all the students.

A surprising proportion of the public is beginning to discover that the thing called education is not functioning adequately in the lives of 80 or 90 per cent of the population. This is the real reason it is so hard to get adequate support for education, according to Doctor Clark.

Until we build our schools around such areas as health, work, leisure, food, clothing and shelter, we shall never get adequate support for education.

House of Blocks

"I'll blow your house in." No chance of any such catastrophe happening to the "house" built of oblong interlocking building blocks featured

by one manufacturer. Many stopped to inspect it to see for themselves. These building blocks are a new type for the construction of large projects: playhouses, for example, in which children can play, high towers, bridges, and the like. The best thing about them, too, is that they make sturdy structures that will not topple or sag.

Fort Smith, Ark., Extends Industrial Training Program

Fort Smith, Ark., wanted to refine and extend its industrial training program to meet the occupational adjustment needs of its citizens.

In 1937 a comprehensive survey was made of the needs of full-time public school enrollees, part-time employed youths and full-time employed youths and adults.

To meet the true training needs of these groups 38 educational offerings were recommended. Of these 35 are now being given by the Fort Smith public schools, it was reported at the St. Louis convention by R. B. McHenry, adviser in industrial training, N.Y.A.

Is Separate Guidance Program Too Costly? Try Group Work

Since a separate guidance program is costly, much can be accomplished in the way of guidance through dealing with large groups of pupils in the classroom, Merle J. Abbett, superintendent of schools, Fort Wayne, Ind., declares.

Classroom teachers can be interested and trained in most of the necessary procedures, in his opinion. The classroom devoted to the preparation for citizenship is one of the finest situations for an integrated endeavor constantly using a program of guidance.

Homeroom guidance can be stimulated from the principal's office, unified and made effective. Teachers are capable of rating personality and in bringing about its development.

Special cases can be referred to the health department, the visiting teacher, the researcher and the psychiatrist.

There is little if any difference between education and guidance in any case, in Mr. Abbett's opinion.

What Pupils and Employers Gain From Part-Time Work

Advantages of cooperative part-time courses, reimbursed from state and federal vocational education funds, are summarized by R. B. McHenry, adviser in industrial training, N.Y.A., as follows:

To the pupil this work (1) provides vocational training; (2) develops good work habits; (3) provides vocational guidance; (4) provides a worth-while activity; (5) bridges the gap between school and employment, and (6) provides job training along with graduation from high school.

To the employer: (1) provides a source of trained help; (2) enables him to discover special talent and ability; (3) enables him to train future help in correct work habits, and (4) gives him an opportunity to aid in developing the human resources of the city.

Most programs of this sort are in small cities, although it is possible for such a cooperative program to work in some larger cities, Mr. McHenry states.

Uniforms Catch the Eye

What more effective way to exhibit band uniforms than a revolving drum, in which miniature figures show the latest designs for both boys and girls! Attractive combinations of colors with plenty of gold braid make it evident that school bands are going to cut more of a figure during the coming year than ever before.

Understanding More Than Funds Is Necessary in Serving the Exceptional

Some outstanding factors in special education, enumerated by Mrs. Katherine M. Cook, chief, division of special problems, U. S. Office of Education, are as follows:

1. Much can be done to serve the needs of exceptional children without a great outlay of money, provided there are cooperation and understanding on the part of school officials concerned with their welfare.

2. School and community agencies supplementing each other's service.

3. Three important types of special service agencies needed in a comprehensive program of special education for exceptional children are: (a) a child study or psychological service, (b) a supervisory service for the special instructional facilities needed by handicapped children and (c) a clinical service to assist in the adjustment of behavior problems.

4. The program of special service is not complete until every child with a physical handicap, a mental handicap, intellectual genius or talent, behavior difficulty or any other type of deviation demanding special attention has become a subject of careful study and has been given the type of education program he requires.

5. Successfully to achieve such a program, one or more qualified persons should be definitely assigned to assume continuous responsibility.

Special Classes Sometimes Work Like Potent Medicine

Special classes for backward or exceptional pupils may be likened to potent medicines, Paul Gossard, superintendent of schools, Bloomington, Ind., told the administrators at St. Louis.

"Wrongly used, these measures have sometimes caused difficulties almost as serious as the original malady.

"Used scientifically and with a modicum of common sense they have been of tremendous assistance in correcting the untenable position of trying to force every pupil into the same mold."

Exhibit Tells the Story

No need to look twice to get this story. Against two large pictures of a dishwashing room and a lavatory two disks revolved on which were mounted such articles as a dish towel, a plate, a piece of woodwork finished in enamel and a tile. Beneath was a large barrel with the name of the product, a cleansing compound, of course.

Introducing New Game for Young and Old



There is something new in games, shown for the first time in the Exposition Hall. Judging from the enthusiasm it arouses everybody will be playing it before long. Perhaps the best way to describe goal-hi is to explain that it is something like basketball but can be played the year round indoors and out by young and old. In playing, a circular court is employed, with a

single goal in the center, making it a focal point of activity for all players, with little or no chance of the ball going out of bounds after a try at the basket. The same goal standard can be used by elementary, junior high school or college teams because of an adjustable feature, permitting raising or lowering the basket to 8, 9, or 10 foot heights.

Maine Education Commissioner Relates Progress in Radio

Seven years ago the Maine state department of education started educational broadcasts of the most amateurish type. This year the schools are producing a half hour program that is given a preferred time each Sunday afternoon by the Yankee network.

The progress of educational broadcasting in Maine was traced by Bertram E. Packard, state commissioner of education, who told how the programs have been elaborated from the standpoint of audience interest and educational objectives.

A valuable result of the state-wide programs, Commissioner Packard stated, has been the increased interest in public school music, band, chorus and orchestra, and in dramatics.

"As a result of our work we have found that the radio broadcasters are convinced of the constructive value of our program and we have reached a point where we could have additional time if it seemed desirable. If it seemed feasible we could also continue the program throughout the entire year."

Quantity Buying of Coal

Central purchasing of fuel for all schools in North Carolina reduced the annual operation of plant costs nearly \$1,000,000 in the last ten years. This is only one of the financial economies resulting from the state plan.

Personalities and Environment Affect Classroom Curriculums

Willard S. Ford, superintendent at Glendale, Calif., lists four primary factors that affect the classroom curriculum: (1) the varying philosophies, technics and methods of teachers; (2) the personality and direction of the principal; (3) the materials of instruction, including textbooks, supplementary books, visual materials and radio, and (4) the physical environment of the classroom, the character and arrangement of the seating, the provision of instructional equipment and the supplies available.

The improvement of the curriculum is consequently concerned about the modification and control of these primary factors.



• E. W. Jacobsen, Oakland, Calif.; H. Claude Hardy, White Plains, N. Y.; Ralph W. Tyler, University of Chicago; Willard S. Ford, supt., Glendale, Calif.

Average Shopper Cannot Do Simple Arithmetic, Math Teachers Are Told

More about mathematics rather than more mathematics is a practical teaching goal, in the opinion of W. D. Reeve of Teachers College, Columbia University.

"The trouble with our teaching in the past has been that we have made the mathematics pure science and have, therefore, made 'child's play' impossible," Doctor Reeve declared at the twenty-first annual meeting of the National Council of Teachers of Mathematics.

The nation is now engaged in mass education and mathematics has an important place in that field. Parents want their children to have a practical useful sort of mathematics, which they themselves lack.

A group discussion of mathematics in consumer education brought forth interesting experiences. William H. Garrett of Webster Groves High School, Webster Groves, Mo., told of taking his junior high school classes into the chain stores and into independent stores.

The pupils found that approximately 40 per cent could be saved by quantity purchasing although the size of the family and existence of storage space had also to be considered.

They found also that bulk goods is more economical than package goods, but there is little bulk goods on the market today.

Finally, they found that the average shopper is unable to do paper and pencil arithmetic while shopping.

Guidance Experts Determine Vocation Aptitudes by Tests

Do you enjoy working with tools? Do you like to write letters to editors?

Several hundred questions such as the foregoing comprise the tests vocational guidance authorities have devised to help the pupil decide his vocational choice. These tests were on display along with other job information that has been compiled by various personnel agencies at the convention of the National Vocational Guidance Association.

This information also figured prominently in the talks that educators presented at the various sessions. Meeting in conjunction with the vocational association was the American College Personnel Association and the National Association of Deans of Women, which with the other two organizations form the American Council of Guidance and Personnel Associations.

President Clarence A. Dykstra of the University of Wisconsin, who addressed the three organizations, made a plea that more emphasis be placed on a study of problems of the individual. His conten-

Schoolman's Greek Requires Interpreters by the Dozen

To the man on the street the educator's vocabulary is just so much Greek.

Here are the schools with a new philosophy of education and a whole new set of machinery for putting it into effect. The new machinery while more adequate is also much more expensive.

Because the educator talks such a jargon the public understands neither the philosophy nor the machinery but it does know all too well the increased cost entailed.

The foregoing points are brought up by W. H. Pillsbury, superintendent of schools, Schenectady, N. Y. Education has become a big business, he believes, and like many another big business is sadly in need of a well-conceived program of public relations.

The professional educator can't be expected to carry the entire burden of interpreting education to the public, Superintendent Pillsbury believes. In New York State the State School Boards' Association, the State Congress of Parents and Teachers, the League of Women Voters and the local associations of university women assume the leadership.

Advisory boards of outstanding citizens in certain communities are also effective in shaping public opinion. They act as buffers between schools and public.

tion is that the individual has been lost and becomes merely a cog in the industrial machine. Describing the individual as the unit of civilization, Dykstra asserted he must be sorted out from the "mass man" and given some chance for expression.

Whether Slow Pupil Is Passed or Failed Is Not the Point

The hypothesis that a pupil of low achievement achieves more when retained in a grade group more nearly representative of his level of ability is not supported by the evidence presented in a study reported by Prof. Walter W. Cook of the University of Minnesota.

As far as achievement is concerned, the crucial issue, according to Professor Cook, appears to be not whether the slow learning pupil is passed or failed but how adequately his needs are met wherever he is placed. No promotion practice really comes to grips with the problem of furnishing each teacher with adequate instructional materials, teaching procedures and a point of view that will enable her to cope with a range of ability of from six to ten years in her classroom.

Broadway Interpretation of Education

An American Mr. Chips was introduced to administrators on Wednesday evening.

The new Mr. Chips, although that is not his name, was the principal character in the stage revue presented by Dr. E. W. Jacobsen, superintendent at Oakland, Calif., and a cast of players drawn from the schools of Clayton, Webster Groves and University City, Mo.

"Mr. Chips," known as Grandad, is a kindly and lovable retired superintendent who interprets the purposes of education in a series of dialogues with his granddaughter, Sally, an earnest and intelligent college girl who wants to become a teacher.

The dialogues are the central thread of the revue, which is a "Broadway" interpretation of the Educational Policies Commission's recently published book, "The Purposes of Education in American Democracy." Around the thread of Grandad's and Sally's conversations are woven

a number of colorful and highly dramatic scenes with tuneful songs, full choral effects and orchestral backgrounds.

There is a tenement scene depicting the deep appreciation of a Jewish woman, an Irish woman and an Italian woman for the opportunities and benefits their children receive at school.

In another scene a farmer, outwardly hard and gruff, reveals a beautiful spirit kept aglow by the successes of his children at school.

Although the show was produced by a St. Louis suburban cast, the direction came from Oakland, Calif. Doctor Jacobsen's hobby is the stage. Jean Byers, English and drama teacher at Fremont High School, Oakland, wrote the entire script. Music for the show was written by Glenn H. Woods, supervisor of music in Oakland schools. Another Fremont high school teacher, Beatrice Burnett, cast and directed the production.

Dorothy Canfield Fisher Explains Children's Crusade

Dorothy Canfield Fisher, the writer, presented to the A.A.S.A. audience a plea for nation-wide participation in the Children's Crusade for Children.

A patriotic morality play is being sent to the principal of every junior and senior high school in the country, depicting the contrast between the lives of American and European children in this time of war. The play is a supplementary way for children to earn money for their contributions to the refugee children of Europe.

The main plan has to do with a mite-box (a sealed can) for each child, which at the close of the crusade is taken still unopened to the nearest bank by the teacher or principal.

All expenses of the Children's Crusade campaign are met by an outside fund, so that not a single penny dropped into the mite-boxes by the children is used for overhead.

Recreational Opportunities for Youth

Our park and forest areas should be increased by the retirement from cultivation of submarginal farms. Ways should be found to make these areas more accessible to youth. Nominally priced overnight lodges and camp sites could be built and an adequate staff of scientists, artists and recreation leaders capable of explaining the geology, botany and zoology of the region could be provided. This is an American Youth Commission dream, according to Floyd W. Reeves, the director.

Draws Line at Medical Treatment

Schools should not take the responsibility for medical treatment, even for the indigent. These pupils should be referred to other community agencies. That is the advice of Dr. W. W. Bauer, director of the bureau of health education of the American Medical Association. Doctor Bauer believes the schools should concentrate on health teaching and should minimize their health services to that necessary for teaching purposes, environmental sanitation and protection of pupil health.

Build Inexpensively and Flexibly, Advises McClure

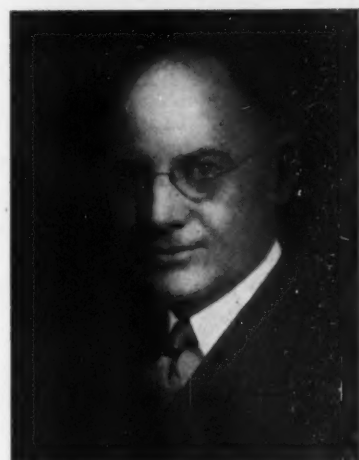
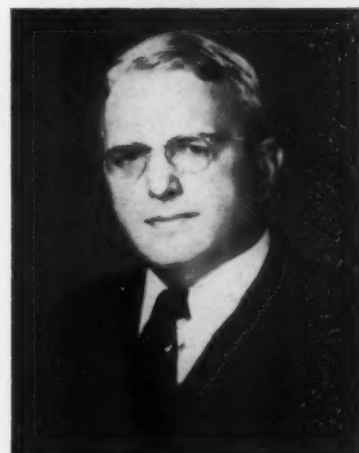
Don't sink too much money into your new school plant, not if it is an elementary school building. Put it up economically so that you can junk it after a time and replace it by a building adapted directly to the needs of that period.

These words come straight from the mouth of a practical schoolman, Worth McClure, superintendent of Seattle schools.

Flexibility is the other point Mr. McClure stresses in regard to school building needs. An evolving school program must not be strait-jacketed by rigid housing, in his opinion.

School populations are on the move, the Seattle superintendent points out. Great care must be taken, therefore, in the location of schools. They must not be built too small to render efficient service or too expensively in an unfortunate location.

In the main, today's school building needs are for replacement and modernization.



• R. D. Case, Salinas, Calif.; Donald DuShane, Columbus, Ind.; Dr. Oliver H. Bimson, Lincoln, Neb.; Francis L. Bacon, Evanston (Ill.) High School.

Calls Decapitated Two Year College Less Logical Than the 6-4-4 Plan

Those who criticize the junior college as a cheap imitation of the standard college cannot lodge the same complaint against the four year junior college, in the opinion of John W. Harbeson, president of Pasadena Junior College, Pasadena, Calif.

While badly outdistanced in popularity by the two year decapitated junior college, the four year type of institution, including grades 11, 12, 13 and 14, is by its very nature better fitted to accomplish the reforms intended by the extension of secondary education in the local community, Doctor Harbeson holds.

His statement of the educational principles upon which the four year junior college organization is based is briefly as follows:

1. The freshman and sophomore college years are a logical part of the secondary school system rather than of the standard college or university
2. Being secondary in character, these years should be closely articulated with the rest of the secondary school system.
3. The most efficient and economical articulation is the union of these

years with the eleventh and twelfth grades as a single four year institution.

4. This junior college, as the top-most unit of the public school system, must be neither traditional high school nor traditional college but must develop character and individuality of its own, with methods and procedures adapted to the ages with which it deals.

5. The four year junior college is an institution of sufficient size and span to be a complete unit in itself. It is not a fractional part of a standard college transplanted from its native habitat into the local community.

6. The twelfth grade is not a logical stopping place inasmuch as it falls two years short of the completion of the secondary span.

No serious problems are inherent in the four year organization, Doctor Harbeson says. Some of the chief obstacles have been the following (1) the difficulty of intercollegiate competition; (2) the effect of tradition; (3) the lack of public understanding; (4) the power of vested interests in traditional forms, and (5) the problems of the pioneer.

Precede Industrial Training by Community-Wide Survey

Here are five questions that the school administrator must ask himself in considering the industrial training needs of his community:

1. What training is necessary to meet the occupational adjustment needs of the community?
2. What organization is best fitted to give the training?
3. Where is the training center provided by the school to be located?
4. How is the training provided by the school to be given?
5. Why is the training to be given?

According to R. B. McHenry, adviser in industrial training, N.Y.A., the administrator must determine what part of the physical plant and equipment of the school will serve the training needs best.

If the school plant and equipment will not suffice for the training, he must make an arrangement with business or industry to use its plant and equipment.

A training program directed specifically toward occupational adjustment entails an additional administrative load. The administrator will find it necessary to set up a sufficient organization so that he can delegate re-

sponsibility for the operation of the program.

Finally, the administrator will have to justify the occupational adjustment program to his board, the taxpayers and others.

North Carolina Getting Its Money's Worth Educationally

For the amount of money expended there is perhaps no other state that is getting more in educational value per dollar than is North Carolina, in the opinion of Roben J. Maaske, who explained to the American Educational Research Association the North Carolina state plan for school management.

The North Carolina plan has resulted in a leveling of educational opportunity, Doctor Maaske declared. This has been extremely favorable for rural areas but it has tended somewhat to "level down" those large urban districts which earlier were in the vanguard of the more progressive districts of the state.

The time is not yet ripe, Doctor Maaske feels, to appraise fully the final effect educationally of the plan for administering schools being experimented with in North Carolina. A sound foundation for an outstanding state school program has been laid.

Devising New Ways of Doing Things Makes Teaching Fun

A well-planned, purposeful, cheerful, rich school program is the reflection of such characteristics in the teacher. It is, therefore, not illogical to put first emphasis in this problem of refining classroom practices upon the importance of the teacher as a person. Out of the breadth of her experience, depth of feeling and understanding, vitality of contacts with life and with people comes the motive power for refinements of school practices.

The foregoing are conclusions that were voiced by Bess Goodykoontz, assistant commissioner, U. S. Office of Education.

There are certain principles on which evidence seems sufficient to base everyday classroom practice. "Now how is the gap between knowledge of what is good to do and actual practice closed up?" Miss Goodykoontz asked. "Someone must work out the processes for the classroom after the scientific facts are discovered.

"This is a job for artists, for experiments, for persons who like to try out new things," she concluded.

One Publicity Technic in Which the School Is Master

When a school undertakes a publicity campaign adjusted to all levels of the community it is competing for adult attention in a field where commercial professional technic is far superior and more appealing.

A second method of interpreting the schools to the community is to bring parents and other adults into direct partnership with the school through a program of adult education.

In the technic of this second method the school is master. It offers possibilities of cooperation and participation by adults in the field of their most intense and compelling emotional interests.

The ideal organization is one that permits every person having a direct or indirect relationship to the instructional process to have responsibility for his share in developing greater understanding and confidence in the purpose and operation of the school.

Social interpretation cannot be successfully concentrated in the hands of a single individual or a small group.

The functioning of the school itself for both child and adult will ultimately be the most effective means of interpretation.

The foregoing is the philosophy of social interpretation outlined by Arthur B. Moehlman, editor of *The Nation's Schools*, before the School Public Relations Association.

We Face the Forties

PAUL V. McNUTT

Administrator, Federal Security Agency

PUBLIC education nears new and greater responsibilities. The complex problems we face today call for social intelligence upon the part of the rank and file of our citizens never before required. Let us specify a few questions that demand an answer.

Can we control business cycles? Are these cycles due to artificial scarcities and rigidities of the market? Should we seek to return to the free market? Are reciprocal tariff agreements a move in the direction of a free market?

How shall we attain a better balance between industry and agriculture? What measures can be taken to stimulate reemployment in private industry? Should we undertake through government competition to set up yardsticks for prices and services in essential industries or is the middle way of consumers' cooperatives to provide these yardsticks?

What shall we do about farm tenancy, absentee ownership in agriculture?

How can we provide more adequate medical and health services to great groups of our population?

These and a host of other problems press for answer. The citizens must be able to pass judgment upon the wisdom of governmental action in dealing with issues such as these.

Let us ask, now, what are the purposes to which American education must devote itself in the decade ahead if it is to serve as the safeguard of democracy. And, second, how may the schools be made more adequate for the performance of their indispensable function?

First of all, the schools must continue, as in the past, to put human personality first. Democracy is that form of government and that social organization which recognize the unique value of the individual person. In this education, the humanities, history, literature, ethics, philosophy, the arts, all have an important place.

Second, while promoting the full development of the individual, the

Right: An oil by Emanuel Tolegian. It is entitled "Pennsylvania Landscape" and was done by the Federal Art Project for the Alexander Hamilton High School of New York City.



schools must not neglect to prepare for civic responsibilities. Man is a composite being, a physical organism, a wealth-producing animal, a center of psychical sensations but, above all, a social creature. As a social creature, he shares reciprocal responsibilities with his neighbor. He has the moral obligation to deal with others in the immediate and more far-flung community in terms of their best interests as well as of his own.

Today in America new moral claims are laid upon the conscience of the citizen. Our politics must build upon these claims. The affirmation of the right of every man to health, economic security, opportunity for growth and self-expression, for participation in the good things of life must be implemented by government.

What the schools must seek to do is to train their pupils in a method of attack upon the solution of social issues. This means more and more emphasis upon the use of knowledge, judgment and skill in dealing

with problems concerning which the learner has an immediate moral responsibility. It means increased participation in community activities. For the education of the citizen in the democratic state is not an education of him to fit the government; it is an education to be the government. Hence he must participate in the real decisions to be made now, in clubs, in classrooms, in all of the organizations of the community of which he is a member.

In a democratic society this participation not only takes the form of discussion, the joint making up of minds; it consists as well in cooperative action, the carrying out of decisions arrived at by the democratic process. It must be a dynamic preparation for a dynamic citizenship. If well begun in the schools, the habit of civic participation will be continued in adulthood, in forum, club, union, grange, church and political party.

More than half of the education of the citizen can and must come after school days are over. Adult civic

education, however, must be built upon the solid foundation of a solid and realistic school education. The strategic situation of organized education for promoting adult civic education, for the clarifying of public opinion through the free discussion of issues, affords an opportunity that must not be longer neglected by the school.

Third, the schools must prepare for participation in economic life. Every individual has a threefold function in the world, to be a man, to serve as a citizen and to earn a livelihood. I am one of those who believe in a greater vocational emphasis, realizing at the same time that no matter of policy which confronts the school administrator has more thorny problems than has the problem of vocational education. But public education cannot dodge its responsibility for a realistic grappling with this problem. Education is for life and the vocations of men loom large as a part of this life.

It may be that I am especially conscious of the problem of vocational education because three of the important divisions of the Federal Security Agency are intimately concerned with it, the C.C.C., the N.Y.A. and the Office of Education. I am glad to report an increasingly close cooperation of these youth-serving agencies at both federal and state levels. Eventually, this cooperative action will result in a unified program for youth in every locality of the nation.

Specialized Training Needed

This audience does not need to be told that fully one third of our unemployed are youth between the ages of 16 and 24; nor reminded of the disastrous consequences upon morale which can flow from long periods of idleness for youth. Vocational training alone admittedly will not solve the problem of unemployment. A great expansion in private industry is needed for regular industrial or agricultural work for all our youth and adults who at present are unemployed. But under expert educational guidance all American youth should have the opportunity to obtain that specialized training they need for the vocational purposes they hold.

If I have emphasized the responsibility of public education to prepare

young people more effectively for the life which lies ahead, education for self-realization, for civic participation, for vocational efficiency, it is with a full consciousness that the discharge of this obligation calls for an even more generous financing of public education than heretofore it has had. The fear is sometimes voiced that, in the competition for support from a tax-conscious public, the schools are likely to fare badly because of extended provisions for the aged, the infirm and the unemployed. I am confident that this fear is ill founded. America's faith in education is too profound, too deep-seated to tolerate neglect. We realize too well the essential relation of public education to democracy to permit any weakness to develop in our defenses against the enemies of popular government.

An Optimistic View

No, if I were to prophesy, it would be that the American people will never impair the great educational structure of the nation by inadequate financial support. That they will make still greater sacrifices for the attainment of our educational ideals.

The forties, like every other decade, presents many pressing problems for educators. For my part, I believe none is more vital than that of equalizing educational opportunity for American youth. It is not enough that the sum of our educational facilities be sufficient to furnish the basis for an informed citizenship to the new generation. It is equally necessary that there be a reasonable distribution of these facilities and that they be made available to all the youth of the land.

It is probable that educational opportunities can best be equalized in the several states through a program of federal and state cooperation. That marked differences exist in the ability of various localities to support an adequate educational program is an accepted fact. The equalization of these differences, certainly up to the point of a satisfactory minimum state program, is primarily the responsibility of the states themselves. But the federal government has a vital and proper interest in the equalization of educational opportunities between states.

In my opinion this problem of equalization can be solved without

impairment of state control of the scope and content of the educational program, by grants of federal funds to those states that are in the greatest need of financial assistance. While such a program calls for extended study, we have in hand today such a plentiful array of facts concerning the fiscal and administrative needs of public education that I predict the forties will see substantial progress.

It must not be forgotten that inequalities in educational opportunity arise not only from the lack of facilities in certain communities but also from the fact that the low income of certain families makes impossible school attendance. Continued attack must be made on this problem by continuing work along the lines of the N.Y.A. student aid programs. Further progress should be made in developing scholarships, student aid and part-time work opportunities for young persons enrolled in secondary schools and colleges. The problems of rural childhood and youth merit special attention. Half of our rural youth are destined to become a part of our industrial urban population, if present trends continue. Technical and vocational training in regional institutions must be made available to them if these youth are to get an even break in competing for jobs in the industrial order.

Education Points the Way

Education alone, however well conceived and well planned it may be, however adequately supported, will hardly usher in the millennium during the forties. But education, reorganized, revitalized and adequately supported, can do this: having found its own bearings, it can point the way to a happier and fuller life for the masses of youth born into a world that threatens to lose all sense of value and direction. It can go far toward achieving that vision of the founders of the republic, a vision that saw in ordinary men and women extraordinary possibilities and that sought by universal, free public education to give to those possibilities scope, direction and fulfillment. May the fateful forties bring rich fruition to the nation of all the faith, intelligence and labor in behalf of public education that this great assemblage of educational leaders represents. With courage and confidence we face the forties.

What Schools Can Learn From Federal Youth Agencies

CHARLES H. JUDD

Consultant, National Youth Administration

UNTIL the last few years the American youth problem has been overlooked because the natural resources of this country have been abundant and the democratic institutions under which the people of the United States have lived have been so generous to the individual that there has been no necessity of giving attention to the subtle changes that step by step have brought us to the present situation.

In order that the seriousness of the youth problem may be clearly in mind, it may be well to review some of the facts with regard to the population of the United States. In the year 1936, the last year for which reliable statistics are available, there were per thousand of the population 16.7 births and only 11.5 deaths. In other words, there were added to the population of the country as a whole 665,562, or about two thirds of a million, individuals.

When the number of births exceeds the number of deaths, employment becomes more and more difficult at the lower age levels. The same facts can be stated in other words. When the older part of the population persistently occupies the places in industry, as it does when the annual death rate is low, the openings for young people at the level of entrance into employment are comparatively few. The answer is well known to school people. Society takes care of the major part of its surplus youthful population by sending anyone who cannot be employed to school.

Unemployed Age Groups

Even these enormous increases in school population do not account in full for the surplus young population. The exact number of young people out of school and unemployed is not available in any of the census reports prior to the special census of unemployment that was taken in 1937. It was then shown that unem-

ployment among young people from 18 to 24 years of age, inclusive, was far in excess of unemployment for any other age groups. The unemployment census of 1937 put unemployment among young people of the ages mentioned at 3,900,000.

The upper schools where employable young people are enrolled are full to overflowing. The federal agencies that deal with youth cannot provide for even a third of those who are out of school and in need of work. The National Youth Administration has a waiting list of youth certified as in need that is as large as the list of out-of-school youth whom it now employs.

Schools Are Overburdened Now

If the schools were charged tomorrow with the administration of all available funds for the care of youth, it is certain that they would not know what to do. Teachers and principals are complaining even now that they are overburdened with pupils who ought not to be in school. Teachers have large classes. It is difficult to obtain proper supervisors for the work projects on which federal agencies employ youth. Certainly teachers cannot leave their classrooms to do what the federal agencies are trying to do. Schools never have had the organization that is necessary to pay subsistence wages.

Since the inadequacy of all the measures that have been taken up to this time is evident and since it is clear that the efforts of everyone who has anything to contribute to the solution of the youth problem can advantageously be used, it seems wise to pool the energy and intelligence that can be turned to the solving of the youth problem.

Induction into adulthood involves certain adjustments. Some are quali-

ties or attainments that are not aimed at directly by education. The most important concept with which the school has never been equipped to deal is the economic concept of self-support. The school may hope to contribute to the preparation of the individual to become self-supporting but the productive labor that makes him self-supporting is not a part of the educational program.

Even the few educational institutions that have adopted productive work to be done by students as a part of their programs have treated this work as something outside the class instruction, organized as a supplement to the true purpose of the institution, which is intellectual training. For the most part self-support when made a supplement of the educational program is provided only in colleges and universities. Until the National Youth Administration came into existence working by pupils for a wage was not thought of in public schools.

N.Y.A. Offers Employment

In contrast with the schools, the C.C.C. camps and the projects of the National Youth Administration have as their first and primary aim the supplying of opportunities to earn subsistence wages. Where these agencies offer instruction, they do so for the purpose of increasing the employability of their enrollees.

Certainly the contrast between education and employment by federal agencies justifies the recognition of two distinct aspects of the process of inducting young people into adulthood. The one aspect can be designated as intellectual adjustment; the other, as economic adjustment.

A second contrast between the programs of schools on the one hand and the C.C.C. camps and the Na-

tional Youth Administration out-of-school projects on the other hand is that the federal agencies emphasize manual labor as the schools never have. Manual labor among young people is far less common than it was in earlier times. The farms provided many a boy and girl of earlier generations work opportunities that have disappeared with the movement of the population into urban centers. By and large, the schools turn the expectations of young people toward white collar jobs. The C.C.C. camps and the work projects of the National Youth Administration give work experiences that are designed to prepare young people for physical labor.

Anyone who has observed what labor does for young people in the C.C.C. camps and on the work projects of the National Youth Administration cannot escape the conviction that manual work is so beneficial that there should be a pooling of the experiences of the federal agencies with those of the schools.

A comprehensive program will undoubtedly involve more than intellect, work habits and economic security. It will provide for health, social adaptability and many of the other qualities that are essential to sturdy adulthood. Attempts are made by some agencies more than by others to obtain one or another of these desirable qualities.

Cooperative Programs

Competent authorities have in recent months taken steps to develop the kind of comprehensive program that takes advantage of all the contributions that the various agencies of the federal government and local communities can make. The United States Office of Education and the National Youth Administration have agreed to cooperate and are actively engaged in cooperating in a number of centers where they have obtained the consent of local school systems to receive into schools for continuation courses the young people who had left school and are now being given work by the N.Y.A.

The arrangements thus made are experimental in several respects. It is not altogether clear what kind of instruction the schools should give. Many of the young people who are

enrolled by the National Youth Administration in work projects were so far alienated by their earlier experiences in school that they do not want ordinary school courses. It is recognized for other reasons also that the conventional school courses will not serve in this situation. The ordinary curriculum of schools leads away from manual work into the so-called "white collar jobs." Vocational courses lead into particular trades.

Nonacademic Instruction

The enrollees of the National Youth Administration belong for the most part to that group in the population the members of which will spend their lives in the ranks of the semiskilled or unskilled. The regular courses of the conventional school curriculum are not what these young people need. It becomes, therefore, the duty of the schools that receive the enrollees of the National Youth Administration to devise new types of instruction, if they are to serve their purpose of properly inducting young people into adulthood, must take cognizance of the need for what the Smith-Hughes Law calls "vocational and civic intelligence." A large opportunity is presented in this cooperative enterprise for the exercise of inventiveness on the part of the schools in opening up to young people new views about their personal and civic obligations and possibilities.

It is confidently expected that the schools will learn in the course of the experiment that is being inaugurated what to do with the pupils who have sometimes been described by the term "nonacademic." No one can observe the great influx into the upper grades of the elementary school and into the high schools of a class of pupils who have never before continued their schooling to these higher levels without realizing that not only do enrollees of the National Youth Administration require new types of instruction but so does also a host of those who are in full-time attendance on schools.

There would be some advantages if private industry could furnish work and wages sufficient for all people. In the long run industry has to support all the people either through the wages that it pays directly or through

public works or relief. The necessity of organizing the industrial system so that it can cope with the problems of youth is perfectly clear. Whatever the jurisdiction or method, the one outstanding fact is that productive work must be supplied.

This discussion will not be complete without emphasis on the unique function of wages as a reward for the labor of young people. The ordinary school program sets up incentives that are either remote or abstract, not to say artificial. When teachers urge pupils to write compositions, telling them that some day they will have to express themselves clearly and effectively in order to persuade their business associates or the public, the goal is remote. When a pupil is rewarded with a mark of 97 or 98 and has his name entered on the school roll of honor, the reward is abstract.

Youth Asks Security

Young people of the adolescent age want to be self-supporting and economically independent. Remote rewards and abstract honors do not satisfy them, especially if they belong, as many of them do, to families that have an annual income of less than \$1000. Any social order that denies to an adolescent boy or girl some measure of economic security and financial independence is badly organized.

The federal government cannot solve the youth problem without the cooperation of local communities. The schools have not solved the youth problem and cannot solve it by present day methods of instruction. It is reasonable to ask that the schools look beyond their classrooms and playgrounds and become a part of a national movement that is cooperative and comprehensive. It is reasonable to ask that educators cooperate with federal agencies and take full advantage of the experience that these agencies have accumulated with regard to work and wages.

It is equally reasonable that school people, who are perhaps more responsible than any other group in the nation for the proper care of young people, insist that the problems of young people require vigorous, prompt and effective consideration and action by governments, local, state and federal.

The Superintendent's Job

OTTO W. HAISLEY

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IN 1937 President Charles B. Glenn of the American Association of School Administrators, by authorization of that organization, appointed a committee to make some inquiries about the superintendent of schools to determine if possible some factors that should be included as a basis for his certification.

The committee has gone about its work realistically. From the results of case studies made of 26 communities, some facts have been obtained which may be significant. These samplings represent various sizes and types of communities. It is believed they are fairly typical so that it is safe to make some generalizations from the studies.

How much formal education should a superintendent have? In the areas in which the studies were made, a master's degree was considered satisfactory but a number of the board members interviewed indicated interest in a doctor's degree. However, there was nothing to indicate that board members believe that the mere possession of any degree constituted *prima facie* evidence that the person possessing the degree had the qualifications needed to make him a successful superintendent.

Superintendents Are "Joiners"

Generally speaking, superintendents are an aggressive lot professionally. They are hounds for educational clinics, conferences, conventions and graduate courses but they complain that the last named are seriously curtailed by conflicting time demands. Much of their reading, as might be expected, is of a professional character and they rely more upon the newspapers and magazines than upon books because their time is limited.

Are superintendents of schools conservatives or liberals in their educational philosophy? The answer to this question probably cannot be

found in any single criterion and perhaps one should not weigh too heavily the superintendents' attitude as expressed by their membership in an organization such as the Progressive Education Association.

This organization is cited because it has been the spearhead of much of the progressive movement in education in this country. It is true that progressive education has been widely criticized. Some of this criticism has been due to misunderstanding, some to misinterpretation, some to pedagogical malfeasance by those who professed the faith and some to a deep-seated opposition to the philosophy underlying progressive education. The Progressive Education Association has had to answer for all the sins committed in the name of progressive education and has, since its origin, been more or less a storm center.

Administrators Are Wary

If we are to judge the country as a whole by the samplings taken, less than 8 per cent of city superintendents are enrolled in its membership. The superintendent may be pursuing the policy of watchful waiting. He has plenty of troubles without this one. He may have decided that in the battle between the progressives and conservatives his best policy is to act only after the outcome of the battle has been determined. Too much significance need not be attached to his failure to join this organization.

While superintendents apparently hold aloof from the Progressive Education Association, they belong essentially to the "joiner class." Churches, chambers of commerce, service clubs, social clubs, fraternal and professional organizations receive active support from this group.

The public is not satisfied with what the schools are doing. Perhaps the schools fall in that general category of governmental agencies that

are always doomed to come in for public criticism. This general tendency is not being helped by some of the practices in the profession. Surveys of school systems are made. Critical statements are picked out of these survey findings, removed from their context and given to the public. They are played up by newspapers and magazines with devastating results and the public schools suffer.

Undoubtedly, progress has been made in definitely fixing the pattern of functions in city school systems. Variations may and do occur from time to time from this pattern but, in general, the executive activity is being exercised by the superintendent and his professional colleagues.

On the other hand, the board of education is exercising the legislative and appraisal functions. This is as it should be and is an ideal well worth striving for.

Definitely, also, there is a decided preference by board members for the unit as against the dual type of executive organization. A large majority of those interviewed, who were of the professional and semiprofessional lay groups favored this type. Generally speaking, teachers favored it. Labor is not so sure where it stands and raises the question of placing too much power in the hands of one individual. Even here, there is almost an equal division.

Type of Executive Control

In the final analysis, the type of executive organization preferred depends more upon the superintendent personally than upon any other single factor. If he is efficient and if he shows a grasp and understanding of the problems of finance, the trend is toward the unit executive.

At the present time there is a feeling of distrust of the superintendent in the field of finance. This may be due to current conditions rather than to lack of ability of the superintendent and, therefore, may be temporary. Teachers have shared, with employees in other fields, reductions

in salaries. Furthermore, they have been threatened so frequently that they have a feeling of insecurity. They have looked to the superintendent for help but he has been unable to do much and he begins to personify in their minds some of the existing evils giving rise to this insecurity.

It is probable that business ability in the superintendent is now at a higher premium than at any time in the history of the public schools. School boards, teachers and the public are looking to the superintendent for wizardry in finance. This overshadows for the time his educational leadership. In the final analysis, however, the status of the superintendent rests upon his educational leadership and there is much evidence that school board members and the public have a high regard for the educational leadership that the American superintendent is furnishing. Not only is he ranked high as an educational leader but, generally speaking, he is a respected citizen in the community, possessing those qualities of character and those attitudes that make him a valuable citizen.

Boards Are Strategic Factors

School boards and school board members are important in the life of a superintendent. They are factors in his happiness and they occupy a strategic position with respect to the welfare of the school system they control and to public education in general.

There is a tradition in America that city school board members shall serve without compensation. The best boards of education have been nonpolitical boards, owing allegiance to no one except the children, the community and the state. The election of an unqualified and politically minded individual to the board of education is always a potential threat to the best interests of the schools. When people will spend several hundred dollars to get themselves elected to a board of education, which carries with it a salary, a fine American tradition has been violated. Sooner or later such boards will probably make decisions in terms of political expediency rather than in terms of community welfare. Furthermore, a

professional staff working in a situation of this kind likewise finds itself making decisions in terms of political expediency. This is the condition in some American communities.

Is the superintendent too verbose in written reports to the board of education? Every superintendent may profitably check his own practices. Evidence has been gathered that many board members do not read lengthy reports submitted to them by their superintendents. There is much good reading material on the market and the time of most board members for reading is limited. There was great unanimity of opinion that board reports should be clear, brief and concise.

Keep Conflicts Confidential

Conflicts existing within the professional staff of a school system, whether confined to teachers or involving administration and teachers, should be ironed out behind closed doors and without publicity. The layman puts a premium on loyalty. When a group of teachers attempts to build up confidence in superintendence, they likewise build confidence in themselves. The converse of this is true. Layman cannot understand disloyalty in the professional staff of a school system and invariably give a low rating to those who display it.

There is a marked trend toward stabilization in the teaching staffs of the public schools and this condition is having its influence on the status of the superintendent. Professional standards have been raised, with the result that in many city school systems there are numerous teachers with college and professional training equal to that of the superintendent himself. Many of these teachers have a comprehensive understanding of the social and economic problems that confront society and have had excellent training background in subject matter areas and child psychology.

Teaching is no longer considered as temporary employment. Men choose it as a lifework and prepare for it accordingly. Turnover of the teaching staff has decreased and teachers look upon themselves as permanent residents of the community. The unmarried women are no longer

satisfied to live in a hall bedroom but demand apartments and houses. Home ownership has been on the increase. Teachers have become direct taxpayers. No longer is this group characterized by docility and passiveness. Teaching has become for the teacher the bread and butter, the books, the automobiles, the homes and all the other things that determine standards of living.

Under these developing conditions, the teacher has increased his demand for economic security. When he does not secure this to his satisfaction, he joins other teachers in teachers' clubs, federations and associations and makes demands of the superintendent and the board of education for greater security. Conflicts may develop out of this situation. By reason of his recognized superior training and because he is a permanent resident and taxpayer, the teacher has acquired a new status in the community and is in a much better position to present the case for himself and his fellow teachers. A more cooperative, more democratic and more wholesome method of meeting teacher problems is developing.

Not Always Democratic

Every superintendent assumes that he employs democratic procedures in dealing with teachers. Not all teachers are in agreement with this assumption. Apparently the conflict is in what really constitutes a democratic procedure. The multiplicity of responsibilities of the superintendent compels him to delegate many duties. With recognition of a professionally improved personnel, delegation has been facilitated. This is particularly true in the field of curriculum, which probably in most cities has become the generally recognized responsibility of superintendent and teachers.

The status of the superintendent is important because he is employed to direct an activity which is vital to the public at large and which is of great concern to youth. It is important that the framework in which he operates permit him, acting under and in cooperation with the board of education, to organize and to direct the forces at hand in achieving in the most effective manner the purposes of the schools.

Horace Mann, Administrator

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THE last two decades have seen a rather general acceptance by school administrators of the maxim: "Leadership is not conferred by authority; it must be won." It is interesting to note, however, that this philosophy as applied to educational administration is not entirely new. As one who early practiced the doctrine of cooperation under leadership, as opposed to coercion or reliance upon authority, Horace Mann affords an excellent example.¹

Any schoolman may learn much from a study of the methods of this educational pioneer, for his problems differed only in degree from those that face any administrator who seeks to change an existing system or introduce a reform. The human nature, the personality that must be worked with and molded, is the same. It cannot be forced or pushed. It must be led by wise guidance and Horace Mann, in all his acts, expressed a realization of the fact.

Normal Schools Needed

At the time he assumed the office of secretary of the board of education for the state of Massachusetts, the improvement of the quality of instruction then being offered was one of the most pressing needs. To minister to this need Mann undoubtedly had in mind even at that time the establishing of normal schools for the professional preparation of teachers.

In his official capacity he might have taken steps to set them up, relying upon the weight of his authority and his keen conception of their need for their success, but in his wonderful insight into human nature he realized that to do so before the time was ripe, before the people and especially the teachers had been awakened to their importance, would seriously impair the usefulness of the new institutions. If they were to

serve their intended purpose the teachers must be led to want them. More than that, if the serious opposition to their inauguration was to be overcome, the people at large must appreciate their necessity.

To bring all this about, however, was not a task to be accomplished overnight. Mann, in his letter of resignation to become secretary of the board, referred to this when he said, "The harvest is far distant from the seedtime. Faith is the only sustainer." With his enduring faith in the improbability of the race, he set up as his first objective the arousing of the whole state to the importance and value of public instruction.

His Foundations Were Secure

The meticulous care with which Mann was willing to work that his foundations might be secure is worthy of emulation by modern administrators. Realizing that information was the prime requisite of successful leadership, he first set himself to a program of reading and study to offset his own lack of specific preparation for an educational career. This done, he made a circuit of visits extending throughout the state, delivering a carefully prepared address on "The Means and Objects of Common School Education." At the county conventions, to which he next turned his attention, perhaps few of those who heard him urge that they examine their educational practices or listened to his kindly recommendations for improvement even surmised the goal toward which he was working.

Mann's next step was to prepare an abstract of the school returns, trusting, no doubt, that the revelations would be a further spur toward educational reform. This abstract was followed shortly by his "First Annual Report to the Board of Education," in which, to quote Hinsdale, "He discloses the defects of the system as it exists but avows the belief

that the excellencies vastly preponderate the defects."

Mann continued his education of the teachers toward a desire for better professional preparation by holding a series of meetings for teachers in Boston with lectures and discussions on educational subjects and, even in the midst of the arduous duties of his office, carried on his popular addresses.

In his second tour of the state, Mann chose as his subject, "Special Preparation a Prerequisite to Teaching," a step nearer his final objective but, even though he had previously notified the legislature of the anonymous gift of \$10,000, his scheme had not yet been laid bare. The professional consciousness of the teaching body was still further stimulated by the appearance of his semimonthly magazine, the *Common School Journal*.

So successful and so carefully planned was his campaign that, when he finally brought forth his plans for a system of state normal schools, he was able to see them carried to fruition and, under his guidance, to lift public education in Massachusetts to the enviable plane it now occupies.

Establishes Libraries

No less evident is Horace Mann's skill as an administrator in other plans that he undertook. When he conceived the idea of placing a small library in every schoolhouse, a project endeared to him by his own boyhood experiences, he first made a survey of the public libraries of the state, determining their number, the number of volumes they contained, their estimated value and the number of persons having the right of access to them. Then, having sought assistance in the preparation of a list of books suitable for a common school library, he devoted space to the plan in his *Reports*. Finally, when he felt the time was ripe, he broached the subject and saw his dream realized in part, if not in whole.

¹Hinsdale, B. A.: *Horace Mann and the Common School Revival in the United States*. New York: Scribners, 1913. Pp. 310.

Chalk Dust

Classroom Chanty

Sing a song of teachers
Working happily,
Training future voters
For Democracy.
Drink a toast to teachers
Guiding youth along
Listen to the lyric
Classroom teachers' song:

*Kiddies at the windows, parents at the door,
"Look here, you young hoodlums, get up off
that floor!" Sourpuss supervisors, dour and
cold and gray, saving up their visits for a hectic
day. Portly superintendents out to have a look,
"Willie, darling (drat that kid), lend the man
your book." Janitors with jitters making fear-
ful noise. "Sidney, throw your gum away!"
Now then, girls and boys!*

Sing an ode to teachers
As they work and play,
Helping buds to blossom
Molding human clay.
Drink a toast to teachers
Calm and free from strife
What could be more peaceful
Than a teacher's life.

*Johnnie lost his rubbers. Mary needs a pin.
Where are Herbie's panties? Who let Fido in?
Two and twenty agents with some books to
sell. "Teacher, Annie's mother says that you
can't spell." "Boys and girls, attention! Look!!"
(fortissimo) "Put your hand down, Oscar, you
don't need to go." Comes now Friday after-
noon; everything serene, peace and quiet, joy
and love fall upon the scene. Feeling worn
and weary? Home work far from done? Deep
down in your heart you know that teaching
school is fun.*

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THIS is the season of the year when Ostara, ancient divinity of spring, re-clothes herself with pretty greens, pinks, purples and yellows and tucks a hepatica or maybe a wild onion in her hair.

Go thou, teacher, and get yourself some new raiment. Modern psychologists and other newspaper columnists have discovered, at long last, that there is a positive correlation between tasteful clothes and tidy school teaching. Alert school administrators long have known that such a correlation

exists even before the researchers plotted their graphs.

Time was when practically all feminine school teachers were fuddy-duddies or look-what-the-cat-dragged-ins. Those days have passed into the limbo along with the pompadour, junebug spectacles and baggy smocks. Today many teachers array themselves as the liles of the field. It is good that this is so.

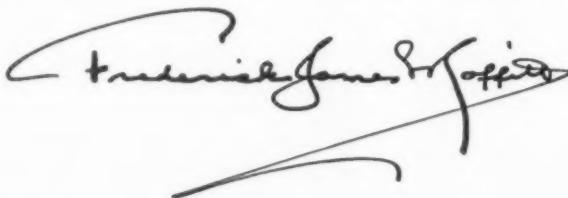
One must recognize, of course, that the teacher pay check shrinks alarmingly at the clamor of charity drives, second-hand jalopy payments and a book-a-year. But after the landlady is quieted, a few of the sisters might well spend for new raiment.

You owe it to yourself and to the high calling that you follow; you owe it to the community, and to the chamber of commerce and to the young man at the soda fountain. But, more than all these, you owe it to the little buddies who are trying to blossom under your tender care.

Why should these inoffensive little ones have to sit day after dreary day and hour after weary hour and see the same old duds on the same old clothes horse. Give them a break, so that the day may come when they can rush eagerly home and electrify the dinner table with the announcement that teacher has a new dress.

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NOTES From a War Correspondent on the Educational Front: The technic of the "blackout" still holds in many schools hereabouts . . . school boards and administrators are making heroic attempts to conserve electricity . . . the youth-joints up town, however, don't seem to worry about their electric bills . . . saw several schools today that, judging from the debris on the surrounding grounds, looked as if they had been recently bombed . . . interviewed wife of Supt. M who said the gentleman had taken to a bombproof shelter until his budget was amputated . . . poison gas attacks from the economical leagues are reported as being less in number this spring . . . severe rationing of educational supplies, however, still continues.



Problems in Sound Pictures

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IF ONE is to accept completely the advertising and sales arguments in favor of sound movies in the school, one will gain the impression that the acquisition of a projector will magically and immediately solve 90 per cent of one's instructional difficulties and that the teachers and public will automatically hail the new instrument with applause and gratitude.

On the contrary, the purchase of a movie machine in a medium sized or small school automatically adds complications to the instructional and administrative procedure and calls for carefully planned publicity and instruction prior to the delivery of the machine in order that teachers and public will not gain the impression that the movie in the school is just another "educational gadget."

Public and teachers must be thoroughly convinced that the local school system, in contemplating the installation of a sound movie machine, is carefully following the trend of the times and that schools far and near, as well as professional research, have proved the instructional advantage of the instrument. Through newspaper articles, P.-T.A. meetings and other contacts the patrons of the school and the teachers should become acquainted with the purposes of the visual program and should know that it is a definite part of good teaching procedure.

While this program of "selling" visual instruction may appear unnecessary to those already in the field, thousands of teachers and millions of laymen have had no contact with visual instruction in or out of school. A small opposing minority of teachers or laymen can frustrate and retard the successful development of any new educational method. The introduction of this visual aid in the school is of sufficient departure from ordinary pedagogical technic that it cannot afford to be purchased and merely handed to the teachers.



Above: A sound picture projector in use at the high school at Elgin, Ill.

Because of sales pressure and the desire of the administrator to obtain the most for his money, probably several times as much time as is actually necessary is spent in the purchase of a machine. Any one of the five or six leading machines will serve the purposes of the average school. Like the purchase of other pieces of fine mechanical equipment, such things as taste, price, service and integrity of the sales representative and manufacturer probably will logically determine the make of machine purchased.

Briefly, nearly any one of the 16 mm. machines on the market that have sufficient volume to accommodate local requirements will answer the needs. The average administrator might better spend his time on other important phases of the program than to spend weeks testing, bidding and attempting to find the one and only best buy. However, unless the school already owns public address equipment, it is recommended that microphone and phonograph attachments be purchased, no matter what make of projector is selected.

The question of room facilities for projection purposes is a major prob-

lem in any visual instruction program. Regardless of what room is used, it should be equipped with a good type of darkening window shades and a good quality screen, which will give adequate reflection even in a semidarkened room. The white beaded glass screen on the roller type of mounting is popular but the particular type selected must depend upon the shape of the room.

From an instructional standpoint, the ideal projection situation would be for each classroom to be provided with shades, screen and other projection equipment. However, in a practical situation, the average school housing from 300 to 500 pupils probably will own one machine and will not exceed two screens (one large screen for auditorium use and one small screen for classroom use). In the early stages and during the developmental period of the program, the director will undoubtedly equip only the auditorium and one or two classrooms with shades and screen for projection purposes.

While the movie should be shown in the regular classroom at the appropriate time in the teaching procedure, financial obstacles automatically limit the use of the movie to a

few classrooms. Therefore, until all rooms can be equipped, it is recommended that there be one central projection room containing all projection facilities and that classes be scheduled to meet in this room when employing films. In scheduling the projection room, a full class hour should be allowed in order that discussion, quiz and necessary repetitions of the picture may be provided.

Ranking equally important as adequate darkening, seating, ventilation and other physical properties of the projection room are the acoustical and noise factors. Noise may often be controlled by merely locating the room in an area free from shop work and other usual school noises but the acoustical properties are not so easily controlled. Extreme care should be taken to select a room that has soft finished walls, is free from hard surfaces and shiny objects and from resonant equipment and other materials that have a tendency to make the room echo, to muffle sound or to give other sound distortions when using sound films.

The projection room should be selected before the machine is purchased, so that it will afford opportunity for sales demonstrations. The total cost of the equipment will range from \$300 to \$1000 or more, depending largely on the size and type of the room in which the machine will be used, that is, whether it is classroom or auditorium.

Who Shall Direct the Program?

School systems employing less than 100 teachers are usually unable to engage a full-time director of instructional education and the question often arises as to who shall direct the program. Often the science teacher or some individual intrinsically interested in photography is assigned the job and necessary allowance is made in his teaching load to enable him to carry on the work.

While this plan has merit, direct responsibility and administration of the program should be with the superintendent of schools, a building principal or one of the most progressive supervisors. Persons in supervisory and administrative capacities usually have more access to building facilities, funds, equipment and class schedules and will contact a larger

number and greater variety of teachers. While classroom teachers are probably equally capable of doing the work and often have more free time to spend developing the program than the already overloaded administrator, the administration should be in a better position to develop the work. Also, there is less danger that the motion picture projector will be regarded as a departmental hobby.

One of the first questions that arises in the minds of those interested in starting visual instruction in a school concerns the source and quality of films available. While the sound movie only recently has become established in the public school, university extension departments, colleges and commercial companies have developed a host of good instructional film subjects. At present the only problem in obtaining appropriate films is getting them on the exact dates on which they will best fit into the courses of study and at the proper grade placement. However, with some advance planning, one can generally obtain any subject desired.

Feature Films Available

The feature picture is rapidly coming into use in the social studies and in English and in many places is employed as a means of raising funds. The major producers are giving excellent cooperation and well-edited and appropriate feature pictures are available for school use. Practically all of the worth-while productions shown in the commercial theaters become available after they have made their first theater run and may be obtained from various sources. The matter of obtaining such films is largely a matter of selection and advance ordering to suit the local schedule. It is strongly recommended that every picture shown, whether recreational or educational, be evaluated by one or more teachers and that accurate files be kept for future reference.

The crux of the visual instruction program simmers down to obtaining the cooperation of all teachers in the school system and inducing them to use the device. They should become acquainted with the literature on the uses of movies and the faculty should understand that the movie machine

is of high utility and that it should be used to supplement and augment other teaching technics. Every teacher should become sufficiently familiar with the mechanical parts of the projector to operate it. Even though it is often planned that reliable pupil assistants operate the machine, the knowledge of the operation of the machine enables the teacher to use it more freely, more independently and with greater confidence and skill. Teachers who know the mechanics of the projector make better use of this teaching aid.

Methods of Financing

Methods of financing the program are usually determined by local conditions. Film rentals and purchases may best be met out of regular library and instructional material funds. Research shows that the original projection equipment is purchased from school funds in nearly half of the schools. The remainder of the schools purchase the equipment through donations, through the showing of recreational pictures and through other means. If school board funds are not available for this purpose, experience shows that a sound movie machine makes an idea school project because of its general appeal and the fact that younger as well as older pupils can contribute to it and will share in its use.

The paramount thought is to start today to get the program under way. Study the project from all angles, use common sense, expect to make a few mistakes but, above all things, get started. Go into the use of movies with the knowledge that here is a new teaching instrument that will make the present teaching much more effective. At the same time recognize the fact that sound movies will probably not revolutionize all teaching any more than did the invention of the blackboard. The work will prove interesting, educationally profitable and worth twice the effort put into it.*

*It is recommended that all beginning teachers read the following: Dent, Ellsworth: *Audio-Visual Handbook*. Hoban, Hoban and Zisman: *Visualizing the Curriculum*. Dale and Ramseyer: *Teaching With Motion Pictures*, Chapter 12, 1937, American Council on Education. *Secondary School Teaching, Visual Aids in Learning Exercises*, Umstadtd, Ginn and Co., 1937. *The NATION'S SCHOOLS*, June 1939. *Educational Screen*.

Intelligence: Its Nature and Nurture

GEORGE D. STODDARD

Dean, Graduate School, University of Iowa

INASMUCH as the 1940 Yearbook of the National Society for the Study of Education includes 50 contributions from as many workers, it is clear that no brief summary can do justice to the work. Perhaps a simple outline of the chapters in each of the two volumes, followed by a few of the outstanding discoveries and conclusions, will best serve the present purposes.

Part 1, which is a separate volume of the Yearbook, is devoted to a comparative and critical exposition of the nature and nurture of intelligence.

The Yearbook opens with an attempt to define in dynamic fashion certain crucial concepts, such as the meaning of intelligence, the meaning of environment and the special problems of the dull and the bright. Of course, these topics have been the occasion for frequent survey and exposition, but these sections have certain merits in the freshness and clearness of their presentation.

Dr. Carmichael's Summary

These chapters are followed by an extensive treatment of the physiological correlates of intelligence, a chapter rarely before available in the literature and now presented as something of a bridge between organic factors and the particular meanings and functions of intelligent behavior. A quotation from Dr. Leonard Carmichael's summary emphasizes some of the educational implications of the topic:

"Intelligent behavior and the mental processes with which education is concerned have never been demonstrated to take place in the absence of active bodily structures. In the mammals and man such behavior is most directly related to the neocortex of the cerebral hemispheres of the brain. . . .

"The direct anatomical, histological, physiological or biochemical study of the brain or the nervous system does not serve, save in certain extreme

A summary of the 1940 Yearbook of the National Society for the Study of Education by its chairman

cases of mental deficiency, *i.e.* the brains of microcephalic aments, to make possible, in the absence of data derived from behavior, any judgment concerning the comparative intellectual status of an individual. . . .

"There are excellent reasons to believe that the general anatomical characteristics of the brain of each human being are determined by processes which must be attributed to what is loosely called 'hereditary' rather than to any specific set of 'environmental' circumstances, other than those essential to normal growth and health. . . . Behavior is a function of the makeup of the total organism, including the brain, and, hence, changes in intelligent behavior during infancy, childhood, the middle segment of life or senescence are attributable to the working out of differential factors which are, in the sense indicated in the last paragraph, to be assigned to 'maturation' or, in its widest connotation, to inheritance.

"There seems to be little doubt that, given the same or comparable environments, brain characteristics and, hence, characteristics of intelligent behavior will change during the period of growth. . . .

"Environment, when considered as the sum of specific stimuli, releases much or all of the behavior of the living individual. . . . Hence, the specific educational regimen provided for each child is of the greatest importance in relation to the intelligence which he will demonstrate in any specific social order as measured by tests devised for use in a

given society; that is, there is no physiological or psychological reason why educational procedures may not so modify each individual organism that he will be more effective in solving certain types of problems than he would be without the specific education in question.

"Society in general and educators in particular can thus be encouraged to provide the richest possible environment in order to allow each brain in each generation to acquire to the maximum extent possible in that particular brain those 'symbols,' 'concepts,' 'ideas' and 'habits of work' which will be useful to the individual in the problems which he will meet in a life lived in the social system into whose membership he is growing. . . .

"If it is assumed that studies using [intelligence] tests are properly controlled and that they are evaluated by appropriate statistical procedures, there is still room for variation in the magnitude of the change of I.Q. produced by superficially similar environments."

The Growth of Intelligence

Similarly, the rest of Part 1 is given over to critical accounts of various problems and issues with respect to the growth of intelligence. Surveys and critiques are presented on such topics as the following: relation of intelligence to socio-economic factors; sex differences in intelligence; a discussion of the researches on twins; intelligence and race, and personality and adjustment as determiners and correlates of real intelligence.

The final section is given over to a fairly extended survey of environmental influences upon intelligence and the present status of nature-nurture research. There is no attempt on the part of the committee to arrive at a unified statement to which all might subscribe.

The volume closes with individual evaluations of the contents of the Yearbook by the various committee

members. In some instances these evaluations were extended to include general comments on the field as a whole. While these evaluations include a few detailed criticisms of methods or materials in the various Yearbook studies, they are, on the whole, more revealing of the point of view of a particular author regarding this subject.

In Part 2 are found 27 studies, all prepared for this Yearbook. Some are original experiments or surveys, while others summarize, in briefer form, numerous recent publications on a particular topic. Thus there are 10 reports on the effects of nursery school attendance upon the I.Q., in seven of which gains are indicated, while no nursery school reports a loss. However, in some cases the gains were small or not greater than similar children were able to make in selected homes.

In spite of the great interest in children's growth in intelligence, it is evident from the Yearbook that only two or three research centers in the country have systematically investigated this problem on a long-time basis, with large samplings. The general conclusion that follows from these studies is that the child is more plastic along mental lines than many persons had hitherto expected: shifts in I.Q. that had been predicted only in relation to radical changes in environment are shown to be commonplace occurrences. Similarly, it is shown that there is hope for some underprivileged children, but not for all, in mental improvement through environmental amelioration.

But many of the studies are fragmentary and few of the major problems can be considered solved. It may be that they are in part insoluble, so long as dependence must be placed on gross testing materials and concepts. It is evident, too, that some of the major issues fall within scientific or social areas that are not without emotional concomitants.

The Yearbook was prepared by the following committee: Dr. Leonard Carmichael, Dr. Frank N. Freeman, Dr. Florence L. Goodenough, Dr. Leta S. Hollingworth, Dr. Harold E. Jones, Dr. George D. Stoddard (chairman), Dr. L. M. Terman and Dr. Beth L. Wellman, assisted by about 50 additional contributors.

Negro School Is Community Center



The facilities of the Cabell School at Charleston, W. Va., are such as to encourage community gatherings. It is one of 49 school units of a building program in Kanawha County. H. Rus Warne, Charleston, was the architect.

M. M. KONARSKI

Consulting Architect for Building Program
Kanawha County Schools, Charleston, W. Va.

THE Cabell School at Charleston, W. Va., was planned in a modest way to offer the facilities of an educational center to promote continuously the improvement and enrichment of individual and group living and to offer adequate realistic and educational facilities, not only for those now in school, but for adults as well, regardless of their occupations or income levels.

Its present size is based on the population and limited immediate needs, but the building is so planned that additions can readily be made. The essentials for a satisfactory beginning are, nevertheless, incorporated in the present structure.

As a school plant pure and simple, it serves adequately the present small enrollment. The general shop for boys and home economics room for girls offer opportunities for a broad program of instruction for those now in school. These two rooms can well be utilized for adult instruction and the extent of activities is limited only by the interest displayed by the individuals and the ability of the instructors to satisfy the needs and requirements of those

who seek further enlightenment and improvement.

The playroom-auditorium arrangement furnishes recreational space permitting running games on the main floor and table games on the stage. The room can readily be used for club meetings, lectures, parent-teacher associations, dramatics, music and exhibits and banquets, food for which can be served from the kitchen room.

The two locker rooms, with dressing and bathing facilities, are accessible to both the playroom and the athletic field at the rear of the building where football, baseball, track, tennis and other outdoor sports hold sway. The two locker room arrangement separates the contesting teams during rest periods.

To summarize, the school building facilities are such as to encourage the organization of the community into clubs, councils and special groups depending on individual requirements and inclinations and may even offer library service, evening school courses, guidance and placement of unemployed youth and needed welfare services.

Wanted: Equipment Research

J. A. TRUE

Superintendent, Council Bluffs, Iowa

THE need for research to determine specifications for various items of school equipment has been felt keenly during the last decade because the P.W.A. has required specifications for every item of school equipment for which the United States government paid in whole or in part.

Before P.W.A. required specifications, the selection of school equipment was largely determined by the claims of salesmen. The best salesman obtained the order, although his product was often inferior to that offered by a less able representative. Purchasers have had no definite standards or specifications to which they could refer in substantiating or disproving the claims of the various manufacturers and jobbers.

During the sixteen year period from 1920 to 1936, inclusive, expenditures for school equipment in the United States have varied from \$25,000,000 to \$40,000,000 annually. Federal subsidy, during the past few years, has caused the expenditures for equipment to increase rapidly. While the years immediately ahead may see less expenditure, the amount in the aggregate is sufficient to warrant scientifically prepared standards to guarantee to the taxpayer a wise expenditure of money in terms of value received.

As administrators of education we must also be able to justify expenditures for equipment in terms of the most efficient program of education for money so expended. Thus far, school authorities have contributed little in the way of developing hygienic and educational standards for designing and constructing equipment. Developments along this line have come largely from industry and in terms of industry's ability to determine what the school people want in the way of improvements and developments.

Industry has always been willing to standardize its product and to give



First grade room, Alexander Central School, Alexander, N. Y., has an inlaid linoleum floor with characters and designs in bright colors, woodburning fireplace decorated with Mother Goose tiles and modern desks and chairs.

the consumer what he needs and wants. It is, then, a duty for those interested in the purchase and use of school equipment to undertake research that will conserve public funds and will improve the educational program.

During the last eighteen months I have had experience in providing a 23 room elementary building with complete new equipment under a P.W.A. grant and the need for research in the field of school equipment has been brought forcibly home to me. The nature of the educational program to be carried on necessarily determines the type of school equipment to be purchased. A movable type of school desk seemed desirable for the program we had planned to carry out in this building.

In the absence of definite standards, a questionnaire was sent to 34 cities in the United States well known as progressive educational centers. This questionnaire attempted to determine the type of desk used in these cities.

Of the 30 cities replying, 22 indicated they used movable furniture;

8 did not. In answer to the question, "What type of movable desk is used?" replies indicated that eight types of movable desks are in use, many of them dating back to the first movable desks that were placed on the market by the manufacturers.

The cost of the desks used ranged from \$5 to \$14 each, depending upon the type. Nine undesirable features of the desks were mentioned in reports from these 30 cities. In only a few instances was a particular type of desk mentioned and the name of the manufacturer given. The lack of uniformity in practice and the indefiniteness of the replies obtained left us just where we started in our quest.

In company with administrators who were experienced in the purchase of school equipment, I spent several days in the exhibit of school equipment at the Cleveland convention last year listening to the propaganda advanced by the excellent salesmen who were in attendance.

Here I observed several types of tests that were being used to demonstrate the durability of the various desks. However, the prospective pur-

chaser was still left in doubt as to which desk would best fit the needs of his educational program and would provide the greatest service over a period of years for the money invested. It was obvious that certain types were preferable to others but there was little reliable information available that would guide one in the final selection. It ultimately became a matter of making a choice in terms of appearance and sales talk, hoping the selection was the best possible.

Standards for Desks

The selection of the school desk, baffling as it was, proved to be the least troublesome of all the items to be purchased. Several reliable seating companies had conducted worthwhile programs of research and their findings were available in the preparation of specifications for desks. But when we attempted to meet P.W.A. requirements with regard to specifications for teachers' desks, chairs, tables, folding chairs, playroom equipment, auditorium chairs, stage equipment, reading tables, pianos, phonographs and many other items, we were unable to obtain any patterns to follow in the preparation of specifications. If we wanted a certain make of any item we tried to write the specifications to fit that particular make and we hoped no one would be able to bid on any other variety.

Our decision was based not on evidence that the item was the best available but rather upon a dread that what we might get would not be as good as the one we favored.

In the preparation of specifications for a mimeograph, for a sound moving picture machine, for a library charging desk and a two-way sound system to make possible the use of radio, we were faced with a complete lack of data other than that supplied by the manufacturers.

Our predicament is doubtlessly typical of the experiences of hundreds of school districts in meeting the specifications' requirement of the federal government in P.W.A. grants and emphasizes the practical need for thorough research in this field. If federal grants for construction and equipment needs are to continue, this research becomes a basic necessity and cannot be half-heartedly

approached or postponed until a more convenient season.

The need for this type of research not only is a problem for school officials but is equally important for manufacturers, architects, contractors and state department officials. It would seem, then, that the logical method of procedure would be to bring all these agencies into a co-operative effort to set up accurate and desirable standards for every item of school equipment. Definite standards of quality, as well as of type, will probably be necessary in different areas to meet the demands of different educational programs and the wide variance in the ability of school districts to meet the cost of furnishings. It will not suffice merely to set up a single standard but, rather, standards for different grades and for different types must be developed. The program of vocational education has become an important part of the curriculum and in the future it will require more provision in the way of classrooms and equipment.

First, Organize the Program

School equipment research needs are obvious to all. All groups concerned in the manufacture and distribution of school equipment are willing to cooperate. The vital problem is, first, to delegate some organization, such as the National Council on Schoolhouse Construction, through its standing committee on standards, to organize the program and to coordinate the different groups so that their resources and abilities will be available.

The second step is to obtain subsidies from foundations or other sources that will enable this research to be carried on over large areas and ultimately throughout the country. Such a subsidy has recently been granted by the General Education Board to the American Council on Education for a two year study of equipment standards and specifications. This study will be under the direction of the joint committee of the American Council and the Interstate School Building Service and will be conducted in a group of southern states.

The American Association of School Administrators, the American

Institute of Architects and other groups might subsidize such research in accordance with their financial ability each year. The findings of such research with definite and desirable standards as to quality and type could then be compiled in the form of a yearbook or a handbook prepared by a joint committee.

Notable work has been done in connection with the development of specifications for certain items of equipment and has been made available through magazine articles by the American Seating Company and other manufacturers. Extensive bibliographies have been prepared by students interested in this field and are now available in published form.

Outline of Equipment Needs

The 1939 proceedings of the National Council on Schoolhouse Construction contained an article by Dr. T. C. Holy of Ohio State University on "Research in the School Plant Field." An extensive outline on school equipment management has been prepared by a committee, of which F. R. Morey was chairman, and is available as Form 196 of Teachers College, Columbia University. A complete bibliography on school equipment by Dr. John W. Sahlstrom is available as Form 189 of Teachers College, Columbia University.

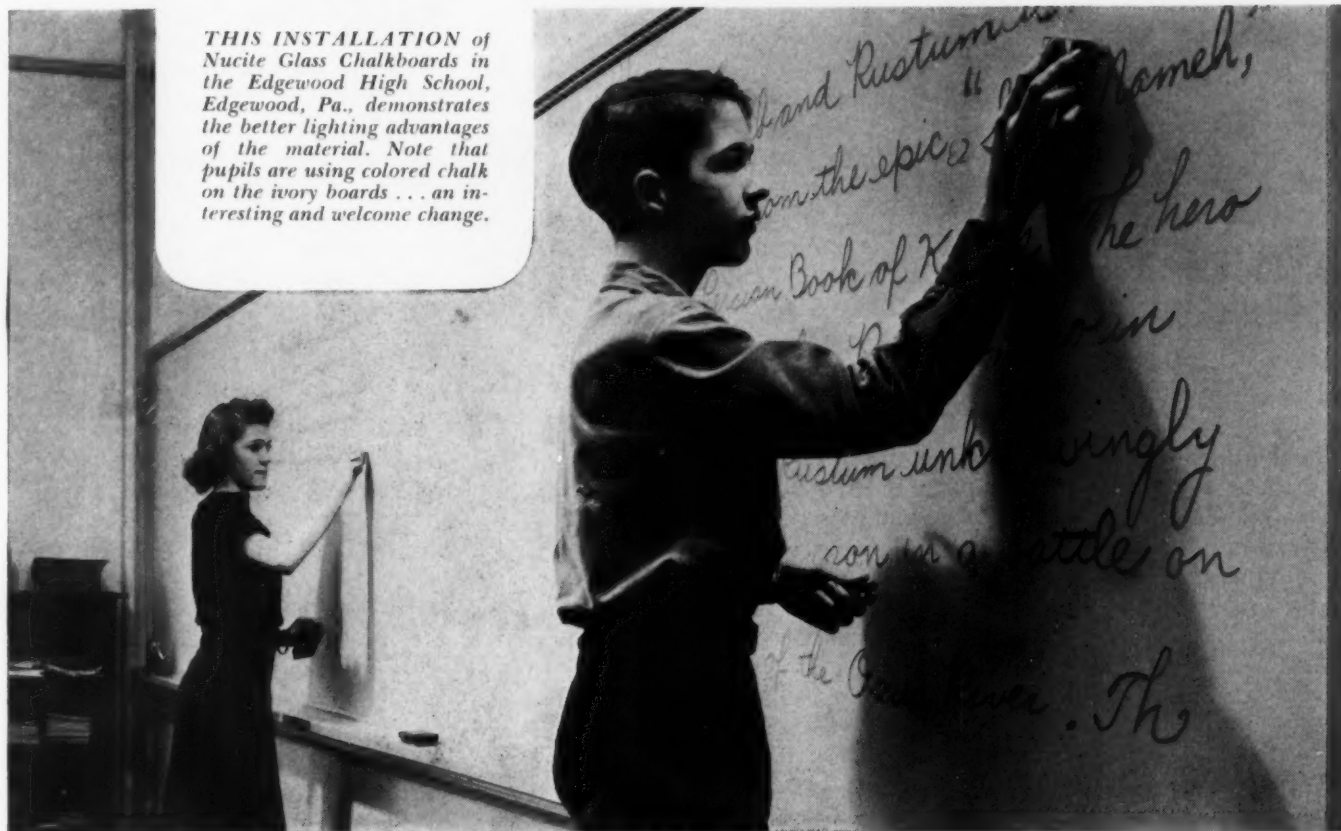
Also, a committee from the American Council of Education published a small pamphlet last spring entitled "School Buildings and Equipment: an Exploratory Study of the Present Status and Need for Research." A summary of research studies in this area during the last three years appeared in the October 1938 number of *Review of Educational Research* entitled "School Plant and Equipment."

These printed materials are the beginnings of research that must be enlarged and refined until specific standards for all items of school equipment are available to officials responsible for its purchase.

Is it not, then, a direct responsibility of the American Association of School Administrators to bring together the groups interested in this research, to subsidize the work as much as possible and to give dynamic leadership to the undertaking?

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Recreation, Libraries and Schools

WILLIAM G. CARR

Secretary, Educational Policies Commission

SCHOOL officials are continually called upon to make decisions regarding the relationships of the public schools to other social services. A comprehensive policy is needed against which current and proposed practices can be checked and discrepancies between theory and practice can be observed and discussed on their merits. The Educational Policies Commission recently proposed such a policy in its publication, "Social Services and the Schools."

These are all public services and they are all educational services. The scope and nature of these services, the interrelationships of public schools, public libraries and public recreation, are changing and the relationships among them are likely to become increasingly important.

Extension of Service

The first trend was an extension of service to new geographical areas. Schools or school services of some kind are now available in nearly all parts of the country. Libraries have been established in some underserved rural areas, sometimes independently and sometimes in connection with schools. Library service has been extended also through the use of traveling libraries and by means of contracts between rural places and near-by urban centers. Recreation services have received great impetus in both urban and rural places through the provision of leadership by the W.P.A. Recreation facilities worth millions of dollars have been created by the C.C.C., N.Y.A., W.P.A. and P.W.A. Some school systems have established recreation services in the smaller communities under permissive state legislation.

The second trend has been a growth in the scope of the three educational services. Nursery schools and kindergartens have become integral parts of some school systems; libraries offer special attention and services to younger children; recreation authorities have established pre-school play centers. Many schools

reopened their doors to postgraduates and nongraduates, offering them guidance as well as further academic and vocational education. Libraries supplemented the school's efforts with reader's advisory services and efforts to provide recreational reading. The federal government provided various public works programs for youth. Recreation centers sought earnestly to help youth with avocational activities, which have developed vocational values.

A third trend is toward closer articulation of school, library and recreation services. Establishment of these community services in the smaller places under school auspices has been a natural outgrowth of the school's need for these services as vital parts of its own program. In places in which separate new community services are not easy to establish it is logical for a good school library to develop into a good community library and for schools to establish on a community-wide basis those leisure-time services that already were provided for children. This third trend should not be taken to be a one-sided development. The schools are receiving services as well as rendering them.

One Obstacle to Progress

To summarize, certain trends are vitally affecting all the public educational services. Schools, libraries and recreation centers are extending their services both in terms of offering and in terms of populations affected. As these services grow they are inevitably drawn closer together. If we could project these trends into the future, we might see a comprehensive, closely-knit program of community educational services reaching into even the smallest villages and settlements the country over. Substantial further progress along these lines must await the accomplishment of certain reforms. Perhaps the most difficult, if not the most important, immediate problem is the need for mutual appreciation and definition of the contribution

that each of the public educational services makes to community welfare. Thus far each profession has been reared separately. Each group tends to develop professional loyalties which are allowed to exclude inter-professional loyalties among workers in closely related services.

The teacher typically feels a stronger allegiance to his fellow teachers and to his state and national professional leaders than he does toward the librarian or recreation leader with whom he works every day. In many communities this professional exclusiveness is a real obstacle to cooperation among the educational services. There are today more than 120,000 administrative units for schools. Library and recreation services typically follow municipal or county lines; hence, there are fewer of them but still a large number. All three agencies want to obtain the benefits of better service over a wider area such as only a larger administrative unit can give.

Reducing Administrative Units

The Advisory Committee on Education, appointed by President Roosevelt in 1937 to consider the relations of the federal government to education, suggests that we could have better school services if there were only a few thousand school administrative units covering the entire country. Essentially the same recommendation has been made by the Educational Policies Commission in its report, "The Structure and Administration of Education in American Democracy." The American Library Association has suggested that as few as 500 large public library systems might provide better library service for the whole population than is now available. Recreation leaders are likewise desirous of establishing administrative units large enough to provide most economically all the many types of leisure activities.

The three educational services have this common need. Meeting the need is, first, a professional leadership problem and, second, a prob-

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lem for the people and the legislatures. In tackling the problem we shall undoubtedly find it advantageous to make the units of administration for schools, libraries and recreation or groups of such units coterminous.

The educational services need planning for coordinated future development. The values to be realized from such coordinated planning and use of facilities are expressed not so much in terms of dollar savings for the taxpayer as in the further extension of needed educational opportunities to groups that are not now served.

Branch Libraries in Schools

In growing communities, the library needs of both children and adults can often be met most economically and efficiently by placing branch public libraries in school buildings. Playgrounds are a necessary part of school equipment just as they are a necessary facility of public recreation. Certainly no professional person can justify the creation of adjacent playgrounds, such as are found in some cities, maintained by two separate educational agencies and competing for the attention of children. Cincinnati has attacked this problem by encouraging its recreation commission to grade, equip and furnish leadership for selected playgrounds adjacent to and owned by the schools. This need for additional facilities is common to all educational agencies. Each can advantageously make use of buildings or other facilities owned by the others.

The common objectives of the educational services are becoming clear. We seek means whereby closer cooperation among these services can be engendered. This is necessarily a slow process because it involves significant changes in professional and public attitudes. It is not a matter that can be adjusted merely by administrative fiat. The focus of attention must, first, be on the relating of programs and, second, on administrative machinery that will sustain the policies and the efforts of professional personnel.

Where school and library relationships advance beyond the preliminary stages, the details of cooperation may be embodied in a contract. The principle of establishing school

and library relationships on a contractual basis has been endorsed by the American Library Association in its revised National Plan for Libraries. A suggested plan of cooperation by contract has been proposed by the Educational Policies Commission in the report, "Social Services and the Schools."

Manifestly any general plan can be suggestive only; it will be incomplete with regard to administrative detail. Questions of personnel control, book selection and, occasionally, of financial administration will occur, no matter how carefully the agreements are worked out. More space in the school building than is generally allotted to the library may be required. The financial arrangements would inevitably require some increase in the amount of funds now devoted to community library services although the additional needed services would compensate for the greater financial effort.

The proposal is a step in the right direction, a step toward cooperation and coordination within two important public services. Special attention can be given to the needs of out-of-school youth who are drifting away from the stabilizing influence of library and school. Finally, adoption of the plan fits in with the development of neighborhood community centers which offer a broad educational and leisure-time program to persons of all ages throughout the year.

Rural Areas Need Libraries

In most rural places the problem is not so much that of coordinating school library and public library services as it is of establishing some form of library service within the area. Some rural communities have worked out successful plans for meeting the library needs of both school and community but these are greatly in the minority.

In certain places it may be desirable for existing or contemplated school libraries to become an integral part of the county (or other) library system, along the lines suggested in the plan for cooperative library service. Where there are no library services the school authorities, by virtue of educational leadership responsibilities vested in them, are obligated to initiate action leading to the establishment of services for

the whole community, school libraries being included in the total plan.

Cooperation of schools and libraries by contract is a thoroughly workable proposal. It has been used in California and some other places with considerable success. The provision of rural public library services through the schools has been tried out successfully in some of the smaller communities in New York State.

A unifying administrative device, which has the effect of engendering cooperation and coordination of services, is the recreation commission, membership of which is representative of major public and private recreation interests of the community. Being varied in its composition, the commission is likely to consider the interests of all community groups while favoring none; it is for the same reason likely to be unresponsive to demands for political or personal favors.

Schools Can Take Lead

Under the commission plan, parks, playgrounds, school buildings, athletic fields, libraries, churches and other facilities can be put to maximum use while the interests of each of the sponsoring agencies are safeguarded. In many communities the public would best be served if a recreation commission were not established. This is true of many small cities which cannot support an independent recreation commission and of places where existing agencies and personnel are not suited to the close functional relationship which administration by a commission demands. In such places emphasis can well be placed upon the gradual assumption of greater recreation responsibilities by the schools.

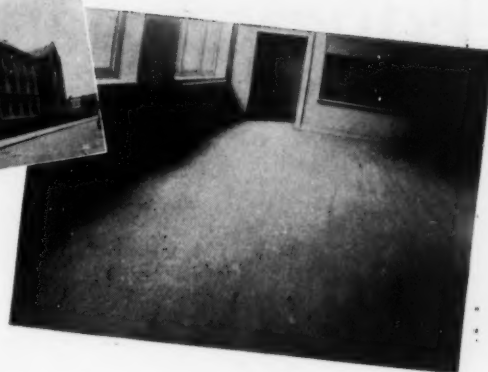
At some future time, perhaps a generation from now, the common interests of public school, library and recreation authorities may crystallize into some form of administrative unification of the three services. No one can foretell with certainty the form that such unification may take. All will agree that no one agency should be permitted to absorb either or both of the others.

The Educational Policies Commission has proposed that the three public educational services in communities of appropriate size may ul-

(Continued on page 66)

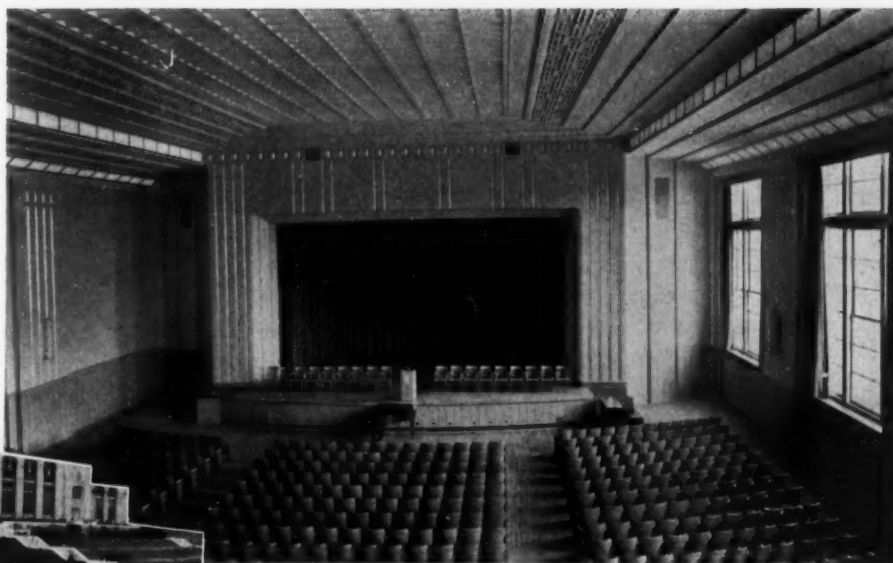
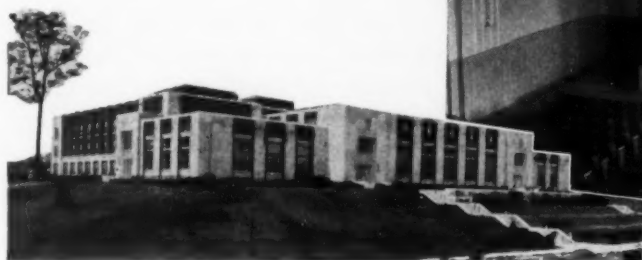


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Education and Economic Security

JOHN K. NORTON

Professor of Education, Columbia University

THE fourth major report of the Educational Policies Commission, entitled "Education and Economic Well-Being in American Democracy,"¹ has just come from the press. It deals with the mutual interrelations of education and economics. This report presents a challenging, long-term program of action in support of which it marshals evidence from the fields of economics and education, presents extensive research data and takes account of the findings of many recent state and national commissions. It shows the relationship between economic well-being and education.

During the stress of the depression the dependence of education upon economic conditions has been emphasized. It is true that unless a community or a nation enjoys a certain degree of economic well-being, adequate support for schools is impossible. Present difficulties in financing the schools, paying teachers' salaries, maintaining existing activities and providing much needed new services are largely economic in origin.

Fluctuations Affect Schools

Fluctuations in our national income from about 80 billion dollars in the peak year, 1929, to less than 46 billions in 1933 have been partly responsible for decreases in school support. Another contributing factor is the greatly increased governmental expenditures allocated to relief, social security and national defense. The percentage of total governmental expenditures allocated to public education declined from 22.3 to 14.4 between 1930 and 1936.

Financial limitations have caused thousands of schools and colleges to restrict their educational services. There has been little opportunity to develop facilities needed by millions of youths whose entrance into economic life has been abnormally de-

layed or to respond to other new and urgent demands.

It is important, however, that we do not lose sight of the other side of the picture, the long-term considerations that involve the dependence of economic well-being upon education. It is with this issue that the report of the Educational Policies Commission is mainly concerned. Accordingly, it deals with such fundamental questions as the following:

Long-Term Consideration

What factors contribute to high productivity in an economy such as ours and what contribution does education make to such productivity? Do the improvement and strengthening of our national economy involve an improved program of public education? What kind and amount of education will result in maximum economic well-being? To what extent are children and youth of superior ability denied educational opportunity because of lack of family finances? What effect has such denial of educational opportunity on productivity and national income? To what extent will an educational program, right in kind and amount, tend to amortize its cost? Does it appear wise and practicable, from a purely economic point of view, further to extend public education?

To answer these questions the report presents a wide range of evidence. Space here permits only a brief summary of some of the ways in which schools and colleges contribute to the well-being of our economy.

General and specialized training increases the efficiency of labor. A high output per worker is generally associated with a high level of vocational intelligence and skill, not the reverse. To quote Chester I. Barnard, a business executive: "The basic process by which the productive capacity of society is maintained or increased is by education. High productive efficiency is impossible without widespread education." Instead

of a great mass of unskilled labor, modern economy more and more demands semiskilled and skilled workers.

The commission warns, however, that education to increase the efficiency of labor should not be conceived in narrow terms. The effective operation of enormous aggregations of labor and capital, characteristic of contemporary economy, demands high types of vocational and economic intelligence. Improved organization and industrial technics can be the outgrowth of suggestion and initiative on the part of the rank and file worker as well as the product of research and managerial ingenuity. The general pattern of organization in business enterprise is likely to be different, as well as more efficient, when the manager is able to assume a degree of judgment, initiative and cooperation on the part of the worker, as opposed to the ability merely to follow simple directions in a routine manner.

Effort to Increase Skill

Education permits workers to transfer from overcrowded callings to those less crowded. To quote the economists, Bye and Hewett: "The general effect of more widespread schooling is to increase the ranks of skilled workmen and to decrease the number of people capable only of cruder manual work."

When workers of energy and capacity must continue in low paid common labor because of inability to obtain training requisite to entering higher paid callings, the national income tends to be decreased. According to Taussig, one of our best known economists, "The removal of all artificial barriers to choice of occupation is the most important goal of society."

Education by maintaining an open door to opportunity stimulates individual effort and initiative. The driving incentive to personal effort which educational opportunity encourages has long been recognized. According to the economist Thomas Nixon Carver no greater stimulus can be

¹National Education Association and American Association of School Administrators, Educational Policies Commission, Washington, D. C., 1940. Pp. 217.

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A 12-passenger International. This style body is practical for sparsely settled districts.



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INTERNATIONAL SCHOOL BUSES

given the human spirit than notice that its achievements are to be limited "solely by its own native power. This has made the typical American a model of energy. Our public school system has provided him a free chance to train whatever ability he possessed."

Widespread education contributes to a just and democratic distribution of earned income. It permits poor youths with talent and energy to rise regardless of inherited social and economic position. Through education many are thus enabled to transfer from the overcrowded ranks of unskilled and poorly paid labor to callings involving training and greater productivity and income.

Economists recognize that the final outcome of this process is to raise the lower incomes, to reduce the higher insofar as these are based on artificial barriers to educational opportunity and at the same time to increase average and total income. Such a situation is consistent with maintaining a democratic society. President Conant states: "A high degree of social mobility is the essence of the American ideal. . . . The perpetual disintegration of hard and fast class lines would seem to me the first aim of an educational system."

Provides Economic Literacy

Education provides general economic literacy essential to the operation and improvement of an industrial economy. The rank and file of citizens must achieve a degree of economic intelligence that will permit them to understand the problems of an industrial power-driven economy and to exercise the controls that will increase the assets and decrease the liabilities that it brings to mankind. Present maladjustments in the organization and operation of our economic system, which keep workers unemployed, machines idle and the national income lower than it should be, must be corrected.

Economic education has the job of interpretation and orientation so that the average citizen will be intelligent as to major economic issues. It should also aim at better understanding of industrial relations and the development of cooperative attitudes.

Consumer education raises standards of value and taste and helps the purchaser to get the most for his

money. The degree to which the consumption habits of a people are based on knowledge and intelligence vitally affects their economic well-being. Consumer demand, in the final analysis, determines the character and quality of the goods and services produced. According to a study of the Twentieth Century Fund: "Under our present economic system the main directing source of all economic activity is expenditure by consumers. To the extent that their choices are irrational and uninformed, the system fails to reach its optimum performance."

While education designed to influence the character of wants and the level of tastes is difficult, it is essential. The report of the commission accordingly suggests specific training in major areas of expenditure, such as food, clothing, shelter, health, amusements and governmental services. Ways and means by which educated consumers may work cooperatively for their own and the common good also are discussed.

The cumulative influence of education is important. For more than a century schools and colleges have been making the foregoing contributions to a greater or less degree. This, in part, accounts for our increased productivity. During the last seventy years, population in the United States has increased threefold while the physical volume of goods produced and consumed has increased more than ninefold. The primary factor in this phenomenal expansion in productivity has been the application of science to the processes of production. Scientific knowledge, however, is helpless in achieving high productivity where ignorance abounds. The general educational level of a people is one of the major factors in determining their economic well-being.

The relation of education and productivity is most clearly understood when one looks upon them as complementary. The existence of a high level of productivity makes possible the financing of an extensive system of schools and colleges. Adequate provision for education is essential to a high level of productivity. Each makes the other possible.

Education can contribute far more to general economic well-being than it has in the past. The Educational

Policies Commission fully realizes that not just any kind of education promotes economic welfare. Hence its report includes chapters on the kind of general and occupational education for economic well-being. Existing and desirable amounts of education are also considered. Extensive data show that many students of superior capacity and diligence are denied educational opportunity because of low family income. To correct this undemocratic and uneconomic situation, the commission proposes a program of effectively free education. Under this program, persons of capacity and diligence would not be debarred from educational opportunity because they or their families lack the money to pay for it.

The report is not merely a milestone in American education but is also an expression of the democratic ideal of equality of opportunity. It will cost money to carry out the proposed program but in the long run it will more than pay for itself. Additions to the national income resulting from increased productivity, along with savings accruing from the wiser use of goods produced, will be far greater than the expenditures for effectively free education. When a nation effectively develops the talents of its people it is taking the surest route to increased economic well-being.

Recreation and Libraries

(Continued from page 62)

timately combine their forces to form a public education authority. Such an authority would supersede the present boards of education, library boards and recreation boards; it would be charged with the administration of a community educational program. Its powers would be derived from the state by virtue of existing state responsibility for public education. Its functions would include the provision of a broad educational and leisure-time program for persons of all ages. Because it could build on sound traditions firmly established by existing boards of control, the new authority would combine the advantages of centralized administration within the community and decentralized authority within the state.

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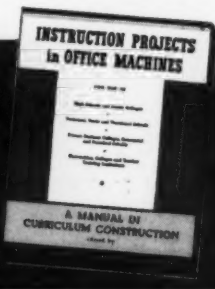
Any information you may desire on the subject of office machine training can be obtained, without obligation, by writing to the Burroughs Educational Division.

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School Finance in Alabama

M. M. CHAMBERS

Specialist in School Law

ALABAMA is unique among the states in having its regular legislative sessions only at quadrennial intervals.¹ It is also distinctive in having "split sessions," with a considerable interim for the purpose of allowing research committees time in which to investigate proposed legislation. After meeting for a few days in January 1939, the legislature adjourned until July 18. After sitting until September 25, it recessed on that day to reconvene June 25, 1940, for the three remaining days of the regular session, which is limited to 50 legislative days.

Some 20 measures affecting the public schools were enacted in 1939.² Those relating to finance may be said to have been designed to accomplish three major aims: (1) increased appropriations of state funds for local schools; (2) an improved method of apportioning state school funds, and (3) a scheme whereby a public corporation created by the state borrows on short-term loans at low rates of interest sums nearly sufficient to allow the state funds under the Minimum Program Law to be paid to the local districts when needed for current expenses.

Pay Salaries When Due

The local districts are still authorized to borrow against their anticipated assets for any current fiscal year. The upshot of the new statute on short-term borrowing is that they are now enabled and required to pay their teachers' salaries promptly when due. Let us look briefly at each of the three lines of fiscal legislation in turn.

The annual appropriations for the quadrennium 1940-43 of state funds to public elementary and high schools were increased by nearly \$2,000,000

per year, or about 20 per cent. An increase in approximately the same proportion was also given to the state institutions of higher learning. For the state department of education and for free textbooks and other miscellaneous services the annual increase is about \$33,000, or about 7½ per cent above the previous quadrennium. From the viewpoint not merely of state funds but of receipts from all sources, it is estimated that the elementary and high schools will have about 10 per cent more money than heretofore and the institutions of higher education, 8 per cent more.

Three Sources of Revenue

The additional revenues for the Educational Trust Fund necessary to balance the increased appropriations will be derived from three measures: (1) reenactment of the 2 per cent sales tax, with a reduction of the number of articles exempted from it, increasing the net annual proceeds by about \$1,400,000; (2) transferring the obligation to pay the one million dollar annual cost of homestead exemptions, from the proceeds of the sales tax to the proceeds accruing from the income tax, and (3) limiting the amount of sales tax revenue that may be disbursed to county boards of revenue (for local government other than schools) to \$1,050,000 per year.

The combined effect of these measures is expected to produce an increase of nearly \$2,500,000 in the amount of sales tax revenue annually available for transfer to the state educational trust fund. Furthermore, the legislature provided that any surplus exceeding \$750,000 in the general fund of the state at the end of any fiscal year shall be transferred to public school funds. The first \$400,000 of any such balance must go to the teachers' retirement fund but any remainder will be available for distribution to the local districts under the Minimum Program Law. What may

be the ultimate value of this conditional appropriation is difficult to foretell, but at least it is a way of declaring the policy of the state that public education is a function meriting increased support.

Hitherto each county's contribution toward supporting the minimum school program was determined by figuring the yield of a 5 mill levy on the assessed valuation of property in that county. Under this scheme, if a county reduced its assessed valuation, it stood to gain a larger allotment of state funds for schools. This encouraged the lowering of assessments and thereby directly tended to decrease the amount of local funds available for education. A new 1939 statute authorizes the state board of education to use, in addition to *ad valorem* tax assessments, certain other economic factors in determining the ability of the several counties to support the minimum school program.

New Economic Index

The factors entering into the new index include: (1) sales tax payments, (2) passenger automobile license payments, (3) public utility valuation, (4) state income tax payments, (5) total farm cash income and (6) value added by manufacture. The first four are to be ascertained from the state department of revenue and the last two, from the U. S. Census. The first three are assigned respective weights of 6, 5 and 3 and the last three have weights of 1 each. The economic index thus found for each county, expressed in percentage of the state total, is to be set up alongside the index of assessed valuation similarly expressed. The average of the two is to be taken as the index of financial ability of each county. It must be recalculated every two years.

The enactment of this plan is an event of significance in state school finance, for it is said that Alabama is the first state ever to enact a scheme of apportionment embodying

¹Pursuant to a constitutional amendment recently adopted, the regular sessions will be biennial hereafter, beginning in 1943.

²Information was obtained from Dr. R. L. Johns, director of administration and finance, State Department of Education, Alabama.

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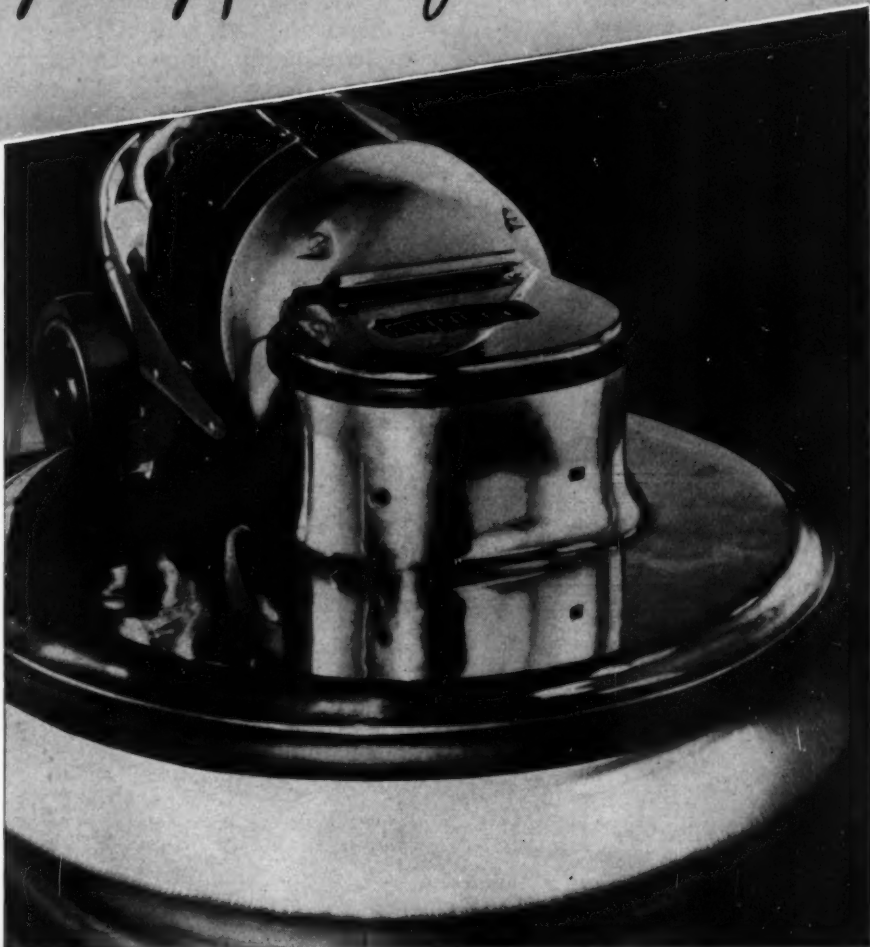
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the use of a modern economic index such as the one here described. A somewhat similar method of determining the relative financial ability of the several states is proposed in the bills now before Congress to provide federal aid to the states for general public education, which follow the general recommendations of the President's Advisory Committee on Education.

For several years county and city boards of education in Alabama have had to obtain short-term loans in anticipation of tax collections in order to meet pay rolls as they fall due. The average interest rate paid by

local boards has been approximately 5 per cent. A statute approved Sept. 21, 1939, authorized the creation of a public corporation composed of the state director of finance, the state commissioner of revenue and the state superintendent of education "to assist local boards of education to pay teachers' salaries and other current expenses as the same shall fall due by borrowing money in anticipation of the proceeds of the Minimum Program Fund Appropriations and by depositing said funds borrowed to the credit of the Minimum Program Fund in order that the Minimum Program Fund may be disbursed at

the time or times during the fiscal year when it is most needed."

Notes or warrants issued by this corporation are to be payable only out of the proceeds of the Minimum Program Fund appropriation for the fiscal year in which they are issued and are not to constitute a general obligation against the state. In no event may their total exceed 40 per cent of the total appropriation for the whole year or 90 per cent of the remaining unpaid appropriation for that year. They may be sold at public or private sale and are exempt from taxation in Alabama.

The corporation is known as the Alabama Public Schools Corporation. It has been able to obtain its loans at the interest rate of 1 per cent, a fact that will result in savings of \$50,000 annually to local boards of education in interest on short-term loans. The statute requires the state superintendent of education to certify to the corporation on the twentieth of each month the amount needed to be borrowed within the terms of the act. Under this authority he has prepared a schedule of proposed loans to be made at appropriate times, together with proposed dates of their retirement, so calculated as fully to be liquidated on Sept. 30, 1940.

The supreme court of Alabama in an advisory opinion has upheld the constitutionality of the act.³ It seems that it is an effective device both for the purpose of promoting prompt payment of teachers' salaries and for the purpose of saving local boards of education substantial sums which they had been paying as high rate interest on short-term loans.

Other important school legislation of 1939 includes a statewide teachers' tenure law and a retirement law. The latter, however, does not take effect until the governor certifies that the retirement fund is sufficient to pay the state's normal contribution to the system. No appropriation for the purpose has yet been made, other than the conditional appropriation previously mentioned in this article. Hence, the date when the retirement act will actually go into operation remains in doubt.

³In re Opinions of the Justices, (Ala.), 191 So. 82 (Oct. 3, 1939).

1000 School Fires

THE following tables are based on 1000 school fires reported to the National Fire Protection Association, department of fire record, between Jan. 1, 1928, and Sept. 1, 1939. School fires continue at the rate of seven a day in the United States and Canada with a total fire loss estimated at more than \$6,000,000 annually.

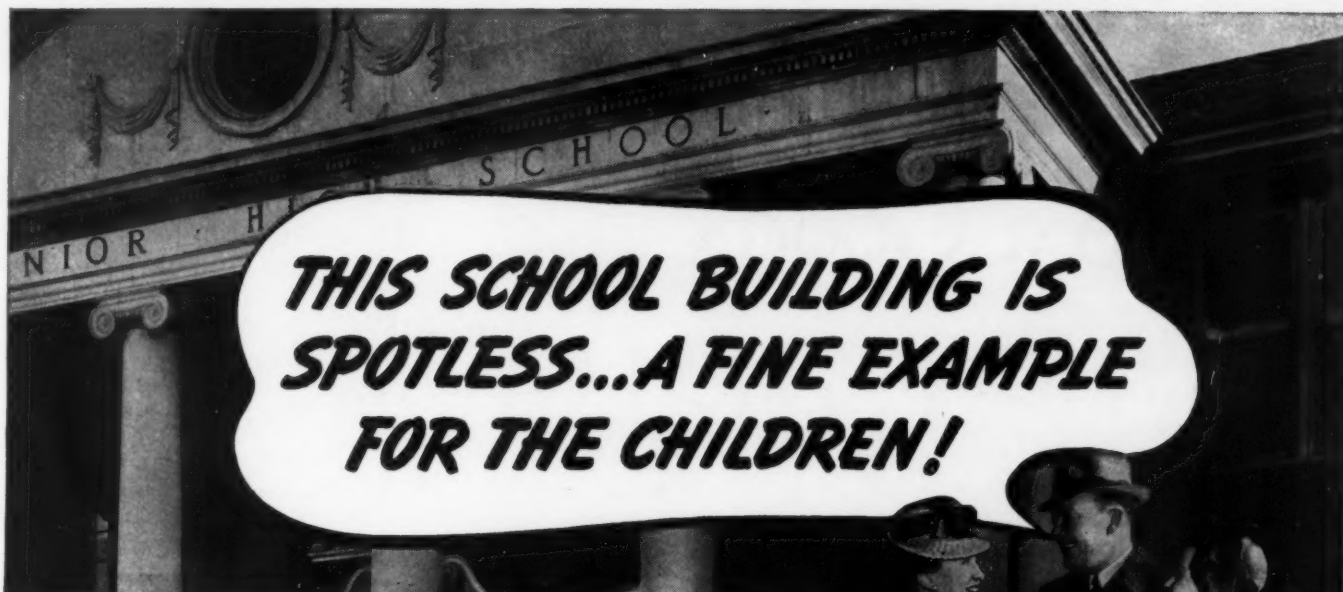
The loss of life per fatal school fire is high, 13.8 persons. This figure is slightly greater than the figure of 8.3 per fire for institutions and much higher than the figure of 1.5 per fatal fire in dwellings or the figure of 6 per fire in other occupancies.

Types of Buildings Involved in 1000

School Fires	
Classroom buildings	720
Dormitories	165
Workshop and laboratory buildings	33
Gymnasiums	20
School store and office buildings	16
Service buildings	19
Chapels or auditoriums	11
Recreation buildings	8
Libraries	3
Miscellaneous buildings	5
Barn or stable	2
Armory	1
Garage	1
Museum	1
Total	1000

Causes of Fires in Public Elementary and High Schools

Types	Number	Per Cent
Incendiary	55	16.6
Electrical causes	53	16.0
Spontaneous ignition	40	12.0
Defective or overheated heating equipment	38	11.4
Smoking, matches	31	9.4
Defective or overheated chimney or flue	26	7.9
Sparks on wooden shingle roofs	18	5.5
Ignition of flammable liquids or gases	18	5.5
Rubbish and litter	18	5.5
Acetylene or gasoline torch	6	1.8
Motion picture film ignited	5	1.5
Chemicals	5	1.5
Lightning	3	.9
Exposure to other fires	3	.9
Miscellaneous known causes	12	3.6
Total known causes	331	100.0
Unknown causes	211	
Total	542	



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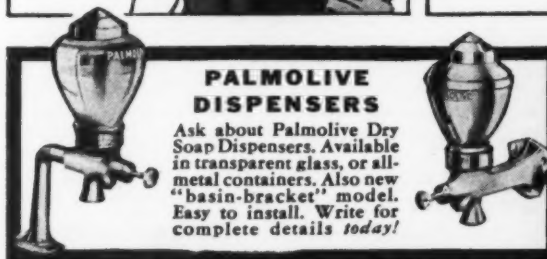


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Off to a Good Start!

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EACH year in order that new pupils in the combination junior and senior high school building at Lexington, Ky., may learn to use the cafeteria to their advantage and may learn the system of caring for used dishes, a bulletin is given out in each homeroom. This bulletin is shown:

"Tomorrow your school lunchroom will open. Just to help you out on the first day, we are going to tell you something about it.

"On the bulletin boards and in your homerooms you will find posted the menus for the first week of school. Try to study the menu for the day so that you will have some idea of what you want. The prices are the same each day. The main dish costs 10 cents, each of the other foods listed costs 5 cents.

"The lunchroom is really a cafeteria. You probably know that this means that you help yourself and carry your food on a tray to a table in the lunchroom.

"Here is a general plan for tomorrow and, in fact, for every day.

1. Find a minute to wash your hands before you go to the lunchroom.
 2. Have your money ready; it saves time.
 3. Boys form a line on the left side of the steam table; girls, on the right.
 4. Order your main dish, soup and vegetable at the steam table.
 5. Help yourself to a tray, a napkin and all the silver you will need.
 6. Select the foods you want from the counter. If you have milk, take two straws from the box.
 7. Pay the cashier at the end of the line. Count your change.
- "After you have eaten your lunch clean up your place at the table. Remember the next person wants to find a clean place, too! Use your napkin to brush crumbs on to your tray.

"Carry your tray to the dish trucks. (You will find one at each end of

Specials

Be wise. Save money and get a good lunch.
Buy the daily special.

	15c Specials	10c Specials
Monday:	Ham Roll Tomato sauce Buttered cabbage Fruit cup Cocoa	Vegetable soup Cream cheese and olive sandwich Fruit cup
Tuesday:	Lamb pie Apricot date salad Cocoa	Alphabet soup Sandwich Apricot and date salad Beef soup Vegetable salad Peach shortcake
Wednesday:	Escalloped veal and tomato Peach shortcake Cocoa	Cup of soup Hot beef sandwich String beans
Thursday:	Hot beef sandwich String beans Sunshine salad Cocoa	Cream of corn soup Cabbage salad Cream cheese and pineapple mint sandwich
Friday:	Creamed codfish Mashed potato Beets Lemon chiffon pie Cocoa	

Daily Specials, January 24 to 28

Get a good lunch at a bargain price.
Buy the specials.

	10c Specials	15c Specials
Monday:	Mushroom soup Sandwich Fruit cup	Chipped beef shortcake Salad One roll Cocoa Roast beef Mashed potatoes Peas Salad
Tuesday:	Scotch broth Salad Sandwich	Vegetable plate Baked potato Creamed carrots Lima beans Salad Dessert
Wednesday:	Chicken soup Jam sandwich Peach and cottage cheese salad	Creamed chicken and vegetable casserole Asparagus salad Fluffy lemon pie Escalloped oysters Orange and grapefruit salad Steamed cherry pudding
Thursday:	Vegetable beef soup Sandwich Asparagus salad	
Friday:	Cream of tomato soup Tuna salad roll Orange and grapefruit salad	

Special! Every Day This Week!

A cup of cocoa given with the main dish or with a 10 cent purchase of any of the following: soup, vegetable, salad or regular dessert.

These cold days you should get acquainted with our hot cocoa made with milk and served with whipped cream.



BY CUTTING THE COSTS
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Hobart Dishwashers Pay!

"HELP" EXCEEDS ALL OTHER OPERATING EXPENSES COMBINED:

● Typical breakdown of the food service dollar shows 27.9c for Salaries, Wages and Payroll Taxes, against 21.2c for *all other* operating expenses. Cost of goods sold is 46.5c; net profit 4.4c.

HOBART DISHWASHERS REDUCE LABOR AND OVERHEAD COSTS:

Where dishwashing by hand or *inadequate equipment* adds unnecessary hours of labor—a modern Hobart machine makes major savings on your *greatest expense item*.

SAVE TOO ON CLEANING, LAUNDRY, "BREAKAGE" AND REPAIRS:

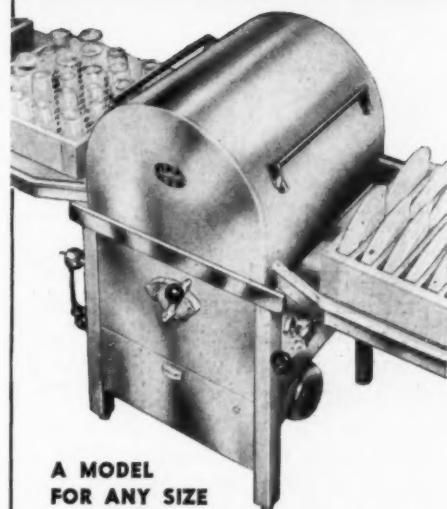
One kitchen reports \$273.00 *annual savings on soap and towels* through a Hobart Dishwasher! You'll also save on *dish replacement*—and eliminate *repair bills* on worn-out equipment.

1% SAVED ON EXPENSES CAN INCREASE PROFITS 23%:

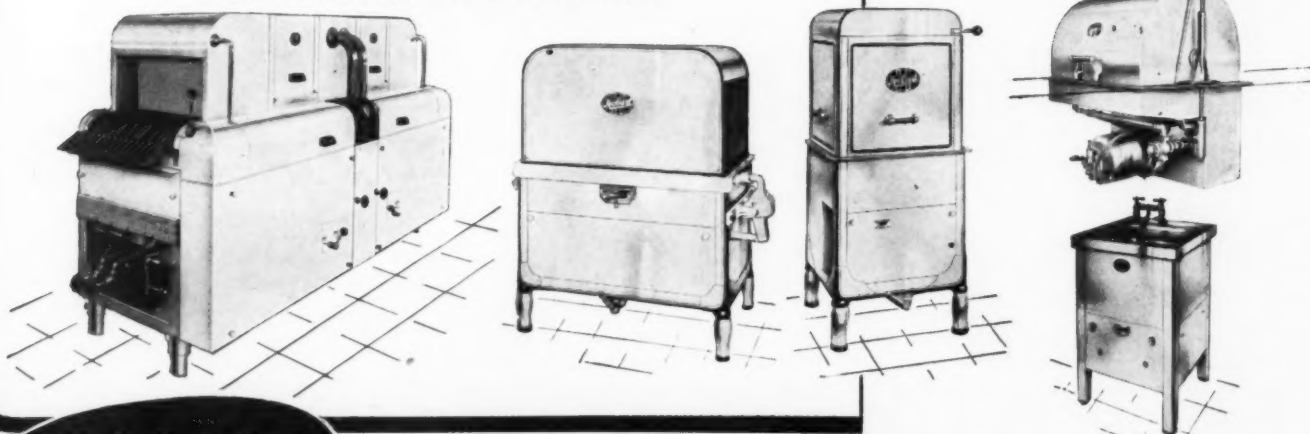
Hobart Dishwashers "cut down" on the items that constitute over 65% of your entire *running expenses*. 1% taken from expenses, added to that 4.4c profit (see above) can mean a 23% profit increase!

Send coupon for free Expense Chart. 15 models of Hobart Dishwashers and Glasswashers enable us to fit your needs exactly.

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the lunchroom.) Scrape your dishes and throw all waste and papers into the waste barrels. Put milk bottles on the shelf, silver on a tray marked silver and glass dishes on a tray marked glasses. Pile your dishes neatly on the truck and put your tray on the lower shelf of the truck."

The homeroom teacher reads and discusses this information with the pupils during the homeroom period. Later the new seventh grade pupils are assembled in the lunchroom and the procedure is explained again with opportunity for them to see the steam table and cash registers. The setup of the counters and the method of cafeteria serving are explained. The waste barrels and trucks for soiled dishes, trays, glasses and silver are pointed out and the place for each is carefully noted.

Four lunch periods are necessary to serve the pupils, the enrollment of the school being approximately 1252. Two of these lunch periods are for the junior high and two, for the senior high. Each is twenty-five minutes long.

The pupil is learning to apply the practices he has learned in his health, civics, physical education and home economics classes when he comes to the cafeteria to select his lunch. During the last two years efforts have been made to induce the pupils to choose a good lunch by setting up good combinations and offering them

Specials for This Week

We have a few wise people who know how to save money on lunches but there are many who are not yet awake to the fact that a nickel saved each day means 25 cents a week.

	10c Specials	15c Specials
Monday:	<i>Vegetable soup</i> <i>Cheese sandwich</i> <i>Apple cobbler</i>	<i>Creamed asparagus and egg on toast</i> <i>Grapefruit and orange salad</i> <i>Cocoa</i>
Tuesday:	<i>Beef soup</i> <i>Salad</i> <i>Sandwich</i>	<i>Vegetable plate</i> <i>Baked sweet potato</i> <i>Beets</i> <i>Creamed carrots and peas</i> <i>Raspberry shortcake</i> <i>Cocoa</i>
Wednesday:	<i>Cabbage salad</i> <i>Corned beef sandwich</i> <i>Cocoa</i>	<i>Baked ham and corn</i> <i>Raisin pie</i> <i>Cocoa</i>
Thursday:	No School	
Friday:	<i>Cream of celery soup</i> <i>Vegetable salad</i> <i>Baked chocolate pudding</i>	<i>Escalloped crabmeat</i> <i>Vegetable salad</i> <i>Baked chocolate pudding</i>

at reduced prices. These combinations, or specials, are offered daily at 10 and 15 cents. The 10 cent special usually contains a soup, sandwich and salad, while the 15 cent special is the main dish, salad or dessert (as designated) and cocoa. Each of these specials offers a saving of 5 cents over buying each item separately.

Menus and specials for the following week are posted in homerooms and on bulletin boards on Friday. Two large posters in the lunchroom, behind the counter, also advertise the "Daily Special." These posters

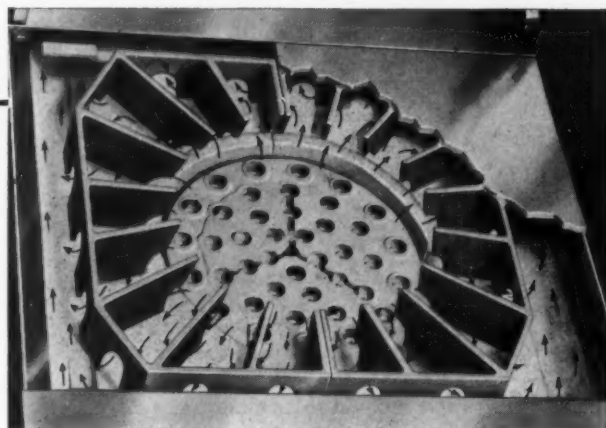
are fitted with movable cardboard strips on which the name of the food is printed so that changes may be easily made from day to day. In addition to the "Daily Special," buying of certain foods is stimulated by giving away free samples with certain purchases. This has been attempted with various foods, apples, cocoa, muffins and salads. This method encourages pupils to try some foods that they probably have not been in the habit of buying and, after the free offer is withdrawn, some continue to buy these items.

Menus, January 24 to 28

	Soup	Main Dish	Vegetable	Salad	Dessert	Sandwich
Monday:	<i>Cream of mushroom</i>	<i>Chipped beef shortcake</i>	<i>Cabbage</i>	<i>Pear and pineapple</i>	<i>Fruit cup</i>	<i>Sandwich spread</i> <i>Cream cheese and date</i> <i>Rolls</i>
Tuesday:	<i>Scotch broth</i>	<i>Roast beef</i> <i>Mashed potatoes</i> <i>Peas</i>		<i>Cho-Cho</i>	<i>Tropical fruit pudding</i>	<i>Ham</i> <i>Apricot jam</i> <i>Muffins</i>
Wednesday:	<i>Chicken</i>	<i>Vegetable plate</i> <i>Baked potato</i> <i>Creamed carrots</i> <i>Lima beans</i>		<i>Peach and cottage cheese</i>	<i>Fudge layer cake</i>	<i>Lettuce and bacon</i> <i>Raspberry jam</i> <i>Cheese biscuit</i>
Thursday:	<i>Vegetable and beef</i>	<i>Creamed chicken and vegetable casserole</i> <i>Cranberry sauce</i>	<i>Stewed tomatoes</i>	<i>Asparagus</i>	<i>Fluffy lemon pie</i>	<i>Dried beef</i> <i>Cream cheese and fig</i> <i>Muffins</i>
Friday:	<i>Cream of tomato</i>	<i>Escalloped oysters</i>	<i>Corn</i>	<i>Orange and grapefruit</i>	<i>Steamed cherry pudding</i>	<i>Tuna salad</i> <i>Roll</i> <i>Pimiento cheese</i> <i>Muffins</i>

GAS RANGES REVOLUTIONIZED

BY THE **VULCAN** RADIAL-FIN TOP!



This is the top that has made cooking faster, better, easier—and cheaper!

Faster, because its flanges add 68% to the normal heat absorbing surface, and because its 119 pounds of metal and $3\frac{1}{8}$ inches of brick act as heat reservoirs.

Better, because the system of flanges and ducts directs the flow of hot flue gas radially, distributes the heat more uniformly and more widely than has ever been possible before.

Easier, because any temperature needed for any kind of food is instantly obtained on each range — from red-hot spot to moderate heat — merely by sliding the vessels over the top.

Cheaper, because the flanges retard the flow of hot gas, transfer more heat to the top; because the heavy metal and thick brick retain that heat; and because chrome-nickel-

iron alloy and non-sag construction ensure long service without replacement.

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It *never* has paid to keep obsolete equipment at work. To do so *now*, in the face of the sweeping improvements that Vulcan brings you, is simply to rob yourself on a new high scale. It is to pay out regularly, year after year, for inadequate service, 25% more than you now need to pay for completely modern service.

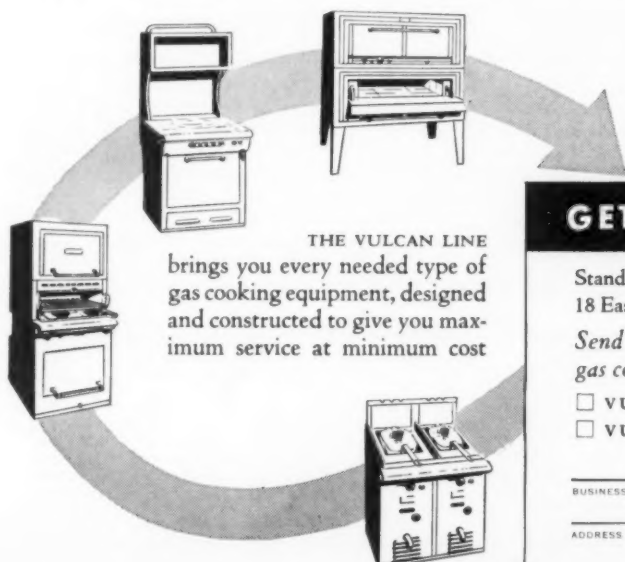
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only on gas ranges made by*

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BUSINESS NAME _____

ADDRESS _____

YOUR NAME _____

Figuring Food Costs Rapidly

GRACE STOWELL SAUNDERS

Supervisor of School Cafeterias
Board of Education, Syracuse, N. Y.

MOST fundamental in maintaining the cost of food purchases on a normal percentage basis, considering the type of food business conducted, is the accurate and constant figuring of all recipe and portion costs. All will agree that this detail in cost control is most intricate and consumes a great deal of time. However, through the use of the accompanying charts and other similar ones, purchasing costs of all food items may be figured with accuracy.

To illustrate the use of this method of figuring costs, three charts are presented, namely, (1) fresh green peas, (2) canned green peas, (3) frosted green peas. With their use edible portions of fresh, canned and frosted peas are quickly determined.

In preparing the charts certain basic factors are applied, such as the

commercial classification of food as purchased so the identity of the food charted may be at once established. To illustrate, peas may be purchased as local or southern fresh, canned or frosted; can sizes may be No. 10 or No. 2 with different net and drained weights. Also other factors affecting costs are commercial gradings, com-

position, age, size, shrinkage and preparation wastes.

The purchasing prices shown are based on actual prices which include low and high price levels for each food item. In preparing the Fresh Green Peas Chart, southwestern fresh Early June peas were used in the tests made as the local fresh were not available. The price range covers hamper lots of 28 pounds and wholesale purchasing costs as of May 1939. All costs are cut down to a 1 pound, or 16 ounce, basis. The peas were shelled and the actual weights of pods and shelled peas are given. Of course, when preparation wastes reach an appreciable amount, as in the case of green peas, the actual cost of the edible portions is relatively higher. Such changes in cost are always computed and tabulated. All portion costs are figured in ounces from 1 ounce to 4 ounces.

HOW TO USE THESE TABLES

In the first line of the appropriate table, locate the price of the peas. Running down this column you can quickly find the price for a serving of any size from 1 to 4 ounces, as well as the price for 1 pound of the edible portion. For example, if frosted peas cost \$.43 for a 2½ pound package, the cost per three ounce serving will be found to be \$.0323.

PEAS—Fresh Green in Pod

VARIETIES: Southwestern Fresh, California

COSTS, AS PURCHASED										
28 lb. hamper.....	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	
1 lb.....	.0536	.0625	.0714	.0804	.0893	.0932	.1071	.1161	.125	
1 oz.....	.0033	.0039	.0045	.005	.0056	.0061	.0067	.0073	.0078	
1 oz.....	.0067	.0078	.0089	.01	.0112	.0123	.0134	.0145	.0156	
COSTS, EDIBLE PORTION										
1 lb.....	.1428	.1667	.1904	.2143	.2381	.2619	.2857	.3095	.3333	
1 oz.....	.0089	.0104	.0119	.0134	.0149	.0164	.0179	.0193	.0208	
2 oz.....	.0179	.0208	.0238	.0268	.0298	.0327	.0357	.0387	.0417	
3 oz.....	.0268	.0313	.0358	.0402	.0446	.0491	.0536	.058	.0625	
4 oz.....	.0357	.0417	.0476	.0536	.0595	.0655	.0714	.0774	.0833	

More accurate to buy by weight; range of prices covers Southwestern Fresh only; time is an item of cost unless hulling is done by machine.
1 lb. as purchased = 6 oz. edible portion.

PEAS—Canned Green

VARIETY: Early June SIEVE: Combination

COSTS													
No. 10, 1 doz. cans.....	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.25
No. 10 can.....	.4375	.458	.479	.50	.5208	.5417	.5625	.5833	.6042	.625	.6458	.6666	.6875
1 lb.*.....	.0929	.0964	.1008	.1051	.1096	.1139	.1184	.1227	.127	.1315	.1358	.1403	.1446
1 oz.*.....	.0057	.0060	.0063	.0066	.0069	.0071	.0074	.0077	.0079	.0082	.0085	.0088	.009
2 oz.*.....	.0114	.0120	.0126	.0131	.0137	.0142	.0148	.0153	.0159	.0164	.017	.0175	.0181
3 oz.*.....	.0171	.0180	.0189	.0197	.0206	.0214	.0222	.023	.0238	.0247	.0255	.0263	.0271
4 oz.*.....	.0228	.0240	.0252	.0263	.0274	.0285	.0296	.0307	.0318	.0329	.0351	.0351	.0362

*Drained peas are generally served; consequently, costs are figured on the drained weight basis.
No. 10 can = 112 oz. net weight or 76 oz. drained weight.

PEAS—Frosted Shelled Green

VARIETIES: Laxton, Laxtonian, Alderman 200, Telephone
SIEVE: Garden Run

COSTS																				
2½ lb.....	.37	.38	.39	.40	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50	.51	.52	.53	.54	.55	.56
1 lb.*.....	.148	.152	.156	.16	.164	.168	.172	.176	.18	.184	.188	.192	.196	.20	.204	.208	.212	.216	.22	.224
1 oz.*.....	.0092	.0095	.0097	.01	.0103	.0105	.0108	.011	.0113	.0115	.0118	.012	.0123	.0125	.0128	.013	.0133	.0135	.0138	.014
2 oz.*.....	.0185	.019	.0195	.02	.0205	.021	.0215	.022	.0225	.023	.0235	.024	.0245	.025	.0255	.026	.0265	.027	.0275	.028
3 oz.*.....	.02775	.0285	.02925	.03	.0308	.0315	.0323	.033	.0338	.0345	.0353	.036	.0368	.0375	.0385	.039	.0398	.0405	.0413	.042
4 oz.*.....	.037	.038	.039	.04	.041	.042	.043	.044	.045	.046	.047	.048	.049	.05	.051	.052	.053	.054	.055	.056

*Drained peas are generally served; consequently, costs are figured on the drained weight basis.
Case 8: 40 oz. packages (2½ lb. per package); Case 10: 80 oz. packages (5 lb. per package).

Now! HIGH-LOW- MEDIUM HEAT

*on same cooking top
at same time!*

Model 771-1
Magic Chef
Patent No.
2,175,629



NOW, for the first time, uniform heat can be maintained over the entire cooking surface of a heavy duty gas range. The 48" range illustrated has three rectangular cooking plates, each of which is smooth and polished, with a unique underside rib construction that insures every part of the plate having uniform temperature. Other heat tops are also available. The Automatic Heat Controlled oven has large capacity:

24" wide, 28" deep, 15" high. Porcelain enameled linings with extra heavy insulation keep kitchen cooler, save gas, make cleaning easy. Automatic Red Wheel Regulator assures constant oven temperature.

Write or phone the American Stove Company branch nearest you to find the economies possible with the new Magic Chef Heavy Duty equipment. For natural, mixed, butane, butane air, or Pyrofax Gas.

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Magic Chef

HEAVY DUTY GAS COOKING EQUIPMENT

Vol. 25, No. 3, March 1940

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That's because each G-E product is built to deliver *more* than you expect of it.

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News in Review

P.E.A. Conference

The 1940 National Conference of the Progressive Education Association was the largest conference ever held by this organization. More than 450 educational leaders from every section of the United States participated, including Mary L. Langworthy, former president of the National Congress of Parents and Teachers; Grace Langdon from Washington, D. C.; Sidonie Gruenberg, president of the Child Study Association of America; Floyd W. Reeves, director of the American Youth Commission; W. Carson Ryan, editor of *Progressive Education*; William H. Kilpatrick, formerly of Teachers College, Columbia University; Mildred Batchelder of the American Library Association; V. T. Thayer, chairman of the Commission on Secondary Curriculum; Ruth Andrus of the New York State Department of Education; Thomas Alexander of Teachers College, Columbia University; Alice B. Keliher, chairman of the P.E.A. Commission on Human Relations; A. J. Stoddard, former president of the A.A.S.A.; E. O. Melby, dean of the school of education, Northwestern University; Ralph W. Tyler, head of the department of education of the University of Chicago; Carroll Binder, foreign editor of the *Chicago Daily News*; Harold Rugg of Columbia University; Charles W. Eliot II of the National Resources Committee; Paul Hanna, chairman of the Joint Commission of the N.E.A. and P.E.A. on Resources and Education; Carl H. Milam, secretary of the American Library Association; Thomas E. Benner, dean of the school of education, University of Illinois, and Lewis Mumford, author of "The Culture of the City."

There were conducted tours to resources in the Chicago area which may be used and developed through education and visits to schools in the Chicago area that are making use of community resources.

There were 36 consultation conferences in progress on Thursday where each person registered in the conference had an opportunity to hear the topics in which he was particularly interested discussed by a panel of experts. The afternoon was given over to demonstrations of drama, folk dancing, music, the arts, radio and films.

Thursday evening was international night with a talk on the present situation in the world by the editor of the *Chicago Daily News* foreign service, followed by a panel of social science

teachers and foreign students, and then by entertainment in the form of folk dances and songs by foreign groups in Chicago.

The Friday program included a number of conferences on the use of regional resources and group meetings on the arts, literature, motion pictures, radio, recreation and museums as resources. There was also a series of conferences for teachers in colleges of liberal arts. The banquet meeting was opened by a madrigal choir of 125 Chicago high school pupils, followed by an address by Lewis Mumford.

Saturday morning consisted of demonstrations of the uses schools are making of community resources. Saturday afternoon after the business meeting there was a program on "The Next Chapter in Democratizing American Education."

HEALTH

Mental Health Activity

Expansion of public school facilities for mental health to reduce tomorrow's patient load in state hospitals has been advocated by Dr. H. T. Manuel, University of Texas educational psychologist, in the tenth research bulletin of the Texas Commission on Coordination in Education.

Warning that one out of every 24 children born in Texas this year will eventually enter a hospital for treatment of some mental disorder if present statistical trends continue, Doctor Manuel declared that initial corrective action should be taken in the public school systems.

Doctor Manuel outlined three spheres in which public school health activity should be expanded: (1) more consideration to problems of mental health in training, selection and supervision of teachers; (2) more intelligent teaching of the principles of mental hygiene, and (3) improvement of school facilities for individual guidance, particularly by providing more and better clinical service.

MEETINGS

Catholic Association Program

The general theme of the secondary school department's deliberations at the National Catholic Educational Association's meeting in Kansas City, Mo., March 27 to 29, will be "The Preservation and Strengthening of American

Democracy by Catholic Secondary Schools."

The Most Rev. Frank A. Thill, bishop of Concordia, will deliver the first paper on Wednesday morning, March 27. His topic will be "Catholic Youth and Catholic Action."

Following Bishop Thill's address, Sister Teresta Gertrude, O.S.B., of the Benedictine Convent, Elizabeth, N. J., will speak on "How to Set Up a Guidance Program in a Catholic Secondary School."

"A Suggested Social Studies Program for the Catholic Secondary Schools" will be the topic of a paper to be presented to the department by Dr. Robert H. Connery, director of the Commission on American Citizenship of the Catholic University of America.

At the concluding session Prof. Clarence Manion of the University of Notre Dame will present a paper on "Lessons in Liberty."

INSTRUCTION

Teacher Commuters

Each University of Texas woman student who is in training to teach home economics must spend six weeks of her senior year in practice teaching.

Since many home economics students will teach in small communities, the home economics department has arranged with the rural independent school at Manor, Tex., 13 miles from the campus, to cooperate in the practice teaching system. This distance the girls drive daily to conduct home economics classes in the Manor High School.

Establishes Central Library

An elementary school in the business area of Knoxville, Tenn., from which the school population had shifted has been transformed into a school warehouse, school repair shop and a central library. One large room is used for the offices of the central library cataloger and her two assistants. More than 7300 copies of supplementary reading material, in addition to the supplementary readers in the schools, are stored here and any teacher may come in to get 25 different titles for her pupils.

In an adjoining room a professional library of more than 400 books has been established to save teachers the expense of buying the recent educational books and to provide them with courses of study for their committee work.

To prevent the expensive burden to textbook publishers of having to "sample" large numbers of teachers, textbook publishers are invited to send a

BIG or small



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sample textbook to this professional library.

The Knoxville schools have a co-operative arrangement with Peabody College for Teachers by which it employs a Peabody library student for two quarters each year. This student has charge of the Knoxville professional library and is given experience in the elementary and junior high schools, serving as a substitute in case a librarian is ill.

Phi Beta Kappa Expands

Nine American liberal arts colleges and universities were recently nominated to membership in the united chapters of Phi Beta Kappa: Albion College, Albion, Mich.; Bucknell University, Lewisburg, Pa.; Catholic University of America, Washington, D. C.; Elmira College, Elmira, N. Y.; Milwaukee-Downer College, Milwaukee; Wake Forest College, Wake Forest, N. C.; Wofford College, Spartanburg, S. C.; University of Denver, and University of Wyoming. They make up one of the largest groups to be admitted to Phi Beta Kappa since the society was founded in 1776. Nominations are tantamount to final election

by the triennial council to meet in San Francisco in September 1940. No new chapters will be considered until 1942.

PUBLIC RELATIONS

Culver Cultivates Fathers

As a means of interpreting the school to the parents, Culver Military Academy for some years set aside one week end each year as a time when fathers could visit the academy and live with their sons, following them for several days in work and in play. Out of the enthusiasm engendered by this annual father-son week grew the Culver Fathers' Association, an attempt to express the appreciation of parents for the institution that had been entrusted with the education of their boys.

The Culver Fathers' Association has been aggressively instrumental not only in publicizing the school to interested parents but also in making gifts of significant extent for its improvement. Under the chairmanship of the president, F. L. Thompson, the association has published a 48 page brochure of Culver entitled "Men in the Making." In effective illustration and descriptive

narrative, this publication tells of the fathers' interest in the institution, the story of its development, its unusual instructional program and its needs. Copies may be obtained without charge from Gen. L. R. Gignilliat, president of the board of directors of the Culver Educational Foundation.

Reviews School Progress

To the progress and improvements in the schools of Duluth, Minn., the *Duluth Herald and News-Tribune* devoted an entire page of its annual edition, Annual Review of Progress. The newspaper story was written by Dr. H. H. Eelkema, superintendent of schools.

Arithmetic Party

Invitations to an arithmetic party, conducted by Elizabeth Slee, junior high school principal and eighth grade arithmetic teacher at Webster City, Iowa, were issued to school patrons on penny postal cards. Each pupil wrote the invitation to his own parents, signing his name and rubber stamping Miss Slee's name below his. In one division of 35 pupils, 21 parents came. In another division with 34 pupils, 19 parents came. They sat with their children and observed the work at the blackboard and at the seats throughout the hour's work. Pupils in the class took advantage of the occasion to do better work and, as an eye opener to the patrons in regard to present methods of teaching arithmetic, the event was unexcelled.

Superintendent or Principal WANTED AS ASSISTANT MANAGER

WE are looking for several key men to fill several responsible managerial positions with our organization in charge of service to homes. The man selected for each position must be a superintendent, or principal, 28 to 40, with at least five years of school experience and a good record and reputation behind him . . . a man who knows the needs of the new courses of study . . . who is successful in handling his teachers and pupils. Sales experience will be an advantage, but not necessary if the man has a sales personality.

Earning possibilities of \$3600.00 the first year, with rapid advancement to the management of a branch office, and a profit sharing partnership in the business with no money investment.

There will be no gamble for the man selected . . . He need not give up his school position until he can

test his ability and prove his liking for this business in the vacation period this summer. During this time he can earn \$350.00 to \$1000.00 depending upon his ability and the length of his vacation.

On September 3, if he has made good and wants to go ahead in this business, we will give him a contract as manager, and bring him to Chicago at our expense for managerial training.

If you can qualify, write giving complete information. State age, nationality, education, school positions held, sales or business experience if any, whether you are married or single, your home and school telephone numbers, the date your school closes and the date you could start this summer. Enclose a recent snapshot of yourself. Your reply will be kept in strict confidence and a personal interview will be arranged as quickly as possible.

Address C. E. Snell, Vice-President

F. E. COMPTON & COMPANY

Compton Building, 1010 North Dearborn St., Chicago, Illinois

FINANCE

One Billion for Schools

An estimate of the educational implications of P.W.A. projects since 1933 has been announced, showing that 44 per cent of its nonfederal projects have been for educational facilities. More than 7000 educational projects, involving construction, improvement and repair of 12,702 buildings, have been completed at a cost of more than a billion dollars.

Board Announces Grants

The General Education Board has announced grants to some of the country's most notable educational projects.

Approximately three quarters of a million dollars was released to the American Council on Education.

Among other grants announced was \$240,000 to the American Youth Commission of which \$150,000 is to extend the life of the commission for a year from July 1, for implementation of its findings in the last four years; the remainder is for a two and one half year

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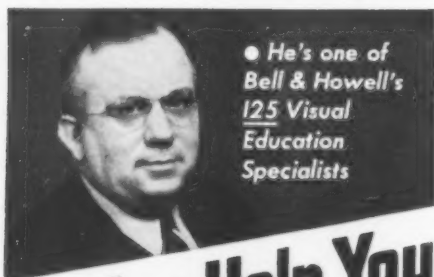
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(Dibrom-oxymercuri-fluorescein-sodium)

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After a thorough investigation of the evidence for and against at the close of the last period of acceptance, the Council on Pharmacy and Chemistry of the American Medical Association again reaccepted (1935)
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SILENT—New 1940 revision of catalog of 16 mm. silent films for rental and sale. Contains many new releases.

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period of study of rural youth problems and demonstration of procedures, which was begun January 1.

A small grant was that of \$12,500 to the Committee of School Plant Research of the American Council on Education for study of school building and equipment problems, particularly in the South.

The sum of \$25,000 was granted to the American Association of Junior Colleges for the first year of a four year project to explore junior college curriculums and related subjects.

Films in Review

ABSTRACTIONS. 1 reel, 16 mm., sound. Distributed by Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York. Rental, \$1.50 per day.

A most unusual and interesting departure from the usual run of films available to schools. An attempt is made to relate visual form and motion to music. Abstract forms and images first play on the screen with music well suited to the mood; then follows a cameraman-artist's concept of the spirit of machines as interpreted by close-up shots of details of moving machines, pulsating pistons to the throb of jazz, swinging parts to swing, the pace of machines reflected in the pace of jazz. Following this, the derivation of unusual textile designs from African jungle life is shown, still accompanied by appropriate music. Might well be shown with some preparation and follow-up to a general school audience but would be of particular value to the creative and imaginative teacher of art or music. Its success will depend on adequate interpretation by the teacher.

Assembled from theatrical short subjects originally produced by Pathe, the four different parts comprising the film are well enough related to form a unified whole. Being promoted originally for theatrical purposes, photography, sound and direction are excellent.—Reviewed by Student Council Films Committee, Teachers College, Columbia University.

LIQUID AIR. 16 or 35 mm., silent or sound. 1 reel. UFA Films, Inc., 729 Seventh Avenue, New York City.

Rating: Of interest at all ages from junior high school to adults; quality of photography, excellent; selection of scenes, generally good; quality of narration, excellent. No musical background to distract.

The film starts with an attempt to clarify the low temperature at which liquid air boils (-190°C.). Follow-

ing simple experiments designed to show how low temperatures are produced, some idea is given of how liquid air is produced. Then follow a number of experiments that show its properties.

Excellent for use in general science, physics and chemistry courses and in the beginning years of college. Accurate in every respect with one minor exception where it is not made clear that cooling by evaporation does not function equally well under all conditions. Weak in the fact that it does not more completely relate the phenomena presented to molecular theories of heat. Hence, its main value is as a basis for initiating new work, arousing interest and making clear the meaning of the absolute scale.

Photography is superior and the sound quality of the film track exceptionally good. Animation could have been employed at certain places to make the molecular motions suggested in the commentary clear and explicit.—Reviewed by a committee comprised of H. EMMETT BROWN, ROSE WYLER, F. T. HOWARD, N. ELDRED BINGHAM and HUBERT M. EVANS, all of Teachers College, Columbia University; ALTON I. LOCKHART of the Horace Mann School and HENRY ALDERFER of the Dalton School.

Film Releases

Streets of New York—An inspirational drama starring Jackie Cooper with Martin Spellman, Marjorie Reynolds and Dick Purcell. It portrays the tense, realistic story of an ambitious, idealistic youngster known as the "Abe Lincoln of Tenth Avenue." The film exemplifies American traditions and the opportunities that are open to everyone, regardless of position in life. 8 reels. 16 mm., sound. Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York.

Living and Learning in a Rural School—The scene of the film is the three teacher elementary school at Allamuchy, N. J. Prepared especially for rural teachers, the film shows the countryside, typical farm homes and the environment of the school. Of special interest is the way in which the teacher makes use of the resources of the community. 2 reels. 16 mm., sound. Sponsored by Fannie W. Dunn and Frank W. Cyr of Teachers College, Columbia University. A printed manual gives further details concerning the school program and the progress of individual pupils, as well as a complete description of the film. For further infor-

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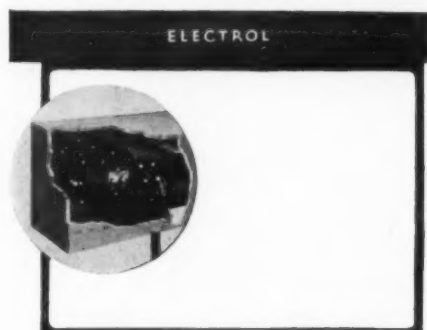


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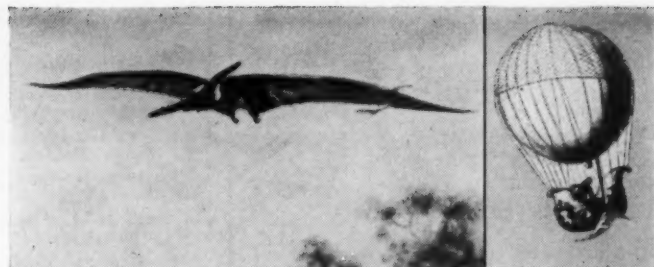
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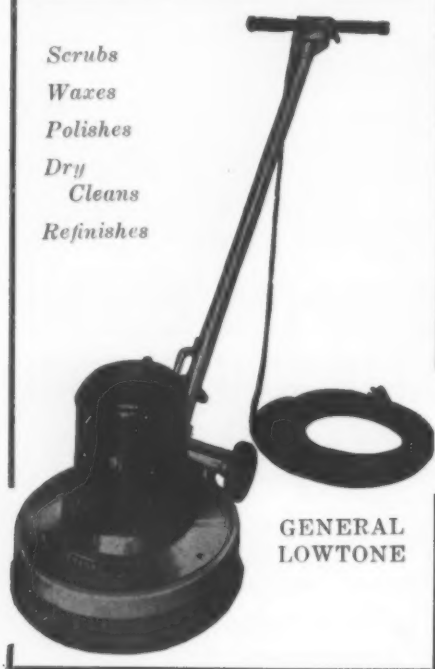
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Coming Meetings

March 13-15—South Carolina Education Association, Greenville.
March 14-16—North Carolina Education Association, Raleigh.
March 14-16—Georgia Education Association, Macon.
March 14-16—Alabama Education Association, Birmingham.
March 21-23—Tennessee Education Association, Nashville.
March 27-29—National Catholic Educational Association, Kansas City, Mo.
March 27-30—Mississippi Education Association, Biloxi.
March 30-Apr. 1—Florida Education Association, place undecided.
March 30-April 5—Music Educators National Conference, Los Angeles.
April 3-5—Inland Empire Education Association, Spokane, Wash.

April 17-20—Kentucky Education Association, Louisville.
April 20—Massachusetts Teachers Federation, annual meeting of delegates, Boston.
April 29-May 3—Association for Childhood Education, Milwaukee.
April 24-27—American Association for Health, Physical Education and Recreation, Chicago.
May 3-4—American Council on Education, Washington, D. C.
June 3-6—Special Libraries Association, Indianapolis.
June 30-July 4—National Education Association, Milwaukee.
Oct. 24-25—Minnesota Education Association, St. Paul.
Oct. 24-26—Colorado Education Association, Denver, Pueblo and Grand Junction.
Nov. 7-8—Arkansas Education Association, Little Rock.
Nov. 7-9—Iowa State Teachers Association, Des Moines.

mation, write Bureau of Publications, Teachers College, Columbia University.

Terracing the Northeast—An informative picture showing the construction and uses of terraces and other erosion control measures as applied to the northeastern part of the United States. 1 reel. 16 and 35 mm., sound. U. S. Department of Agriculture, Extension Service.

Men and Dust—A 2 reel factual film dealing with the silicosis and tuberculosis stricken lead and zinc mining area at the juncture of Kansas, Missouri and Oklahoma. The picture was filmed by Sheldon Dick, former photographer for the Federal Farm Security Bureau, and commentary was directed by Lee Dick, producer and director of "School," a film on progressive education. Available in 16 and 35 mm., sound film. Garrison Film Distributors, Inc., 1600 Broadway, New York.

Camera Highlights of 1939—One reel, 16 mm., sound film, reviews the great events of the past year, including the visit to this country of British royalty, coronation of Pope Pius XII, the bombing of Helsinki and the Graf Spee incident. Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York.

cluded as an active part of high school requirements, Mr. Hall said, there has been marked reduction in accidents involving persons in this age group.

BUILDINGS

Township Building

The township high school board of education at Lawrenceville, Ill., has just completed a construction program involving the remodeling of the high school building and the construction of a new four story building. The top floor is devoted to all phases of music and visual and radio education. The main floor has one of the best library rooms for high schools in the state. The other floors accommodate fine arts and recitation rooms, lunchroom, mechanics and agriculture room and a complete unit for health. The gymnasium seats 2500 people and has a playing floor, 72 by 100 feet. The total cost including the grounds was \$300,000 of which \$20,000 was for equipment.

Name School for Dr. Horn

The elementary school of Colorado State College of Education will hereafter be known as the Ernest Horn Elementary School, in honor of Dr. Ernest Horn of the University of Iowa, regarded as one of the foremost specialists in elementary education. He was a member of the faculty at Greeley thirty years ago.

Selection of the name was made by vote of members of the faculty who at one time or another spent most of their teaching time in the elementary school for a period of three years or more. Fourteen participated. The selection was influenced by a desire to name the school for a person nationally known for his work in elementary education and that he be now living. Doctor Horn is professor of elementary education and director of the University Elementary School, University of Iowa.

SAFETY

Most Dangerous Age

The high school is the most promising field in which to work for reduction in traffic fatality records, according to John J. Hall, street and highway safety director of the National Conservation Bureau, the accident prevention division of the Association of Casualty and Surety Executives. Mr. Hall declares that the most dangerous age among automobile drivers is believed to be from 16 to 22. When driver training courses have been in-

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On the Air During March

The following programs of particular interest to school people are arranged by the Columbia Broadcasting System and the National Broadcasting Company. All programs are listed in Eastern Standard Time. Watch listings for your local outlets.

Daily

12:30-1:15 p.m.—National Farm and Home Hour (NBC Blue).¹

Sunday

10:30 a.m.—March of Games, children's quiz game program, produced and directed by Nila Mack (CBS).

11:30 a.m.-11:50 a.m.—Music and American Youth (NBC Red).

12:30-1:00 p.m.—On Your Job, vocational guidance program (NBC Red).

1:00-1:15 p.m.—Pilgrimage in Poetry, broadcasts from homes of famous American poets (NBC Blue).

March 3—Paul Laurence Dunbar, Dayton, Ohio.

March 10—James Whitcomb Riley, Greenfield, Ind.

March 17—Vachel Lindsay, Springfield, Ill.

March 24—Eugene Field, St. Louis.

March 31—Joaquin Miller, Oakland Heights, Calif.

2:00-3:00 p.m.—Great Plays (NBC Blue).

March 3—The Second Mrs. Tanqueray, Pinero.

March 10—Secret Service, Gillett.

March 17—L'Aiglon, Rostand.

March 24—Captain Jinks, Fitch.

March 31—The Three Sisters, Chekhov.

2:00-2:30 p.m.—Democracy in Action, a series of programs designed to show the people of the United States how their federal government operates. Produced in cooperation with the U. S. Office of Education (CBS).

2:00-2:30 p.m.—University of Chicago Round Table (NBC Red).

3:00 p.m.—New York Philharmonic Symphony, John Barbirolli, conducting (CBS).

4:30-5:00 p.m.—The World Is Yours, auspices of Smithsonian Institution (NBC Red).

Monday

9:15 a.m.—American School of the Air. Frontiers of Democracy, produced in cooperation with the Progressive Education Association (CBS).²

2:00-2:30 p.m.—Adventure in Reading. Dramatizations of books and lives of famous authors, showing background of their works, by Helen Walpole (NBC Blue).

4:30 p.m.—Adventures in Science, guests interviewed by Watson Davis, director of Science Service (CBS).

Tuesday

9:15 a.m.—American School of the Air. Folk Music of America, produced in cooperation with the Archives of American Folk Songs of the Library of Congress, the Music Education Conference and the National Education Association (CBS).³

2:00-2:30 p.m.—Gallant American Women, dramatizations depicting the important part women have played and are playing in the activities of American life; produced in cooperation with the U. S. Office of Education (NBC Blue).

4:15 p.m.—Of Men and Books, reviews of current books and discussions of contemporary authors by Prof. John T. Frederick of Northwestern University (CBS).

9:00 p.m.—Cavalcade of America (NBC Blue).

9:30-10:00 p.m.—Edward Weeks, editor of *Atlantic Monthly*, explores the world of letters, with guest speakers (NBC Blue).

10:15 p.m.—Americans at Work (CBS).

Wednesday

9:15 a.m.—American School of the Air. New Horizons, a chronological history of the lives of explorers and pioneers (CBS).⁴

March 6—American Birds.

March 13—Mammals.

March 20—Agriculture.

2:00-2:15 p.m.—Music for Young Listeners (NBC Blue).

4:15 p.m.—Highways to Health, medical talks for the layman, arranged by the New York Academy of Medicine (CBS).

10:30-11:00 p.m.—Adventures in Photography, amateur photography program (NBC Blue).

Thursday

9:15 a.m.—American School of the Air. Tales From Far and Near, presenting a selection of children's books of high literary quality (CBS).⁵

2:00-2:30 p.m.—How Do You Know? Dramatizations based on exhibits at Field Museum of Natural History (NBC Blue).

4:15 p.m.—Adventures in Science. Interviews with prominent scientists by Watson Davis, director, Science Service (CBS).

4:30-4:55 p.m.—Medicine in the News, sponsored by the American Medical Association (NBC Blue).

8:00 p.m.—Musical Americana, with Deems Taylor and Raymond Paige (NBC Blue).

9:00-9:30 p.m.—Rochester Philharmonic Orchestra (NBC Blue).

9:30-10:30 p.m.—America's Town Meeting of the Air, George V. Denny, moderator (NBC Blue).

10:30 p.m.—Americans at Work, documentary broadcasts comprising dramatizations of occupations and interviews with people engaged in various vocations (CBS).

Friday

9:15 a.m.—American School of the Air. This Living World, history and current events broadcasts consisting of dramatizations and forums presented at various New York City high schools, with the pupils participating in the actual broadcasting (CBS).⁶

1:45-2:00 p.m.—General Federation of Women's Clubs, consumers' program (NBC Red).

2:00-3:00 p.m.—NBC Music Appreciation Hour, Dr. Walter Damrosch, conductor and commentator (NBC Blue).⁷

4:15 p.m.—Men Behind the Stars, legends of the constellations dramatized, Prof. William H. Burton Jr., executive curator, Hayden Planetarium, narrator (CBS).

7:30-8:00 p.m.—Yesterday's Children, series on well-known children's books (NBC Blue).

8:00-8:30 p.m.—Order of Adventurers, experiences of famous scientists and explorers (NBC Blue).

10:30-10:45 p.m.—Story Behind the Headlines, as told by Cesar Saerchinger. Broadcast in cooperation with the American Historical Association (NBC Red).

Saturday

10:45-11:00 a.m.—The Child Grows Up, talks by Katherine Lenroot, head of Children's Bureau, U. S. Department of Labor (NBC Blue).

12:00 Noon—Milestones in the History of Music, presented by the Eastman School of Music under the direction of Dr. Howard Hanson (NBC Red).

12:00-12:25 p.m.—American Education Forum, current series devoted to outstanding experimental colleges in the field of general education with Dr. Grayson Kefauver of Stanford University (NBC Blue).

12:30-1:00 p.m.—Nila Mack's Let's Pretend, dramatic adaptations of fairy tales and original fantasies by the CBS director of children's programs. Roles enacted by cast of junior stock company of the air (CBS).

1:00-2:00 p.m.—What Price America, U. S. Department of Interior conservation program (CBS).

5:00-5:30 p.m.—The Human Adventure, dramatization of the progress of university scientific research presented by the University of Chicago (CBS).

6:30 p.m.—What's Art to Me? Produced in cooperation with the Museum of Modern Art. Dramatizations and quiz programs on art in present day life (CBS).

7:00 p.m.—People's Platform, round table discussion of social, economic and political problems, Lyman Bryson, chairman (CBS).

7:30-8:00 p.m.—Art for Your Sake, dramatization of the lives and works of great painters by Dr. Bernard Myers, cooperation National Art Society (NBC Red).

10:00-11:30 p.m.—NBC Symphony Orchestra, Arturo Toscanini, conductor (NBC Blue).⁸

¹Except Sunday.

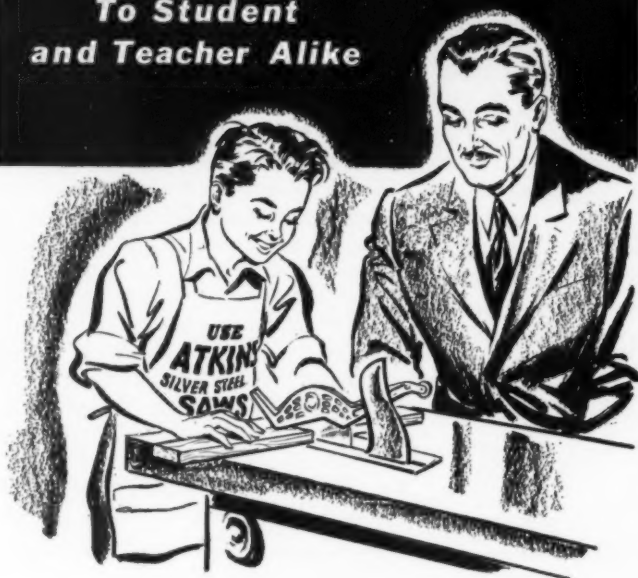
²The American School of the Air program will be heard in the Eastern Standard Time Zone only at 9:15 a.m.; in the Central Standard Time Zone at 2:30 p.m.; in the Mountain Standard Time Zone at 1:30 p.m., and in the Pacific Standard Time Zone at times that can be learned from the various local stations.

³NBC Music Appreciation Hour will be heard in the Chicago area over WCFL on Tuesdays from 2:00 to 3:00 p.m. (C.S.T.).

⁴The NBC Symphony under the direction of Arturo Toscanini will be heard in Chicago from 9:00 to 10:30 p.m. (C.S.T.) over WCFL.

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RADIO

Hearing on High Frequencies

Late in February the Federal Communications Commission scheduled a hearing on ultra-high frequencies on the broadcast band allocated last year for educational broadcasting. As there was some fear that loss of the band of frequencies reserved for education might be threatened by the request that these channels be taken over for commercial purposes, steps were being taken to have education well represented at the hearing. The hearing was scheduled for February 28, a most inopportune date for educators in the midst of the A.A.S.A. convention in St. Louis.

"Texas School of the Air"

Texas college educators have stepped into the state's public school classrooms via radio. Under the direction of John W. Gunstream, deputy state superintendent of education, three state institutions are collaborating in a new program "Texas School of the Air." The institutions represented are the University of Texas, the North Texas State Teachers College and the Texas State College for Women. Fifteen minute programs are scheduled for four times weekly for sixteen weeks. Programs cover social relations, natural sciences, music and language arts and are aimed to supplement regular public school teaching, to stimulate school interest and to furnish timely information.

Returns to the Air

"The Human Adventure" program that was presented experimentally last summer by the University of Chicago and the Columbia Broadcasting System returned to the air in February as a half hour program. The broadcast is heard each Saturday at 5:00 p.m. (E.S.T.). The program recounts in dramatic form the interdependence and cooperation in research among scientists and scholars in the great universities of the world. The program was conceived by William B. Benton, vice president of the university, and the educational material for the broadcast is prepared by the university.

Gives O. S. U. Transmitter

A gift of radio transmitting equipment has been made by the Columbia Broadcasting System to Ohio State University for use at the university's Radio Institute, engineering school and experimental station, WOSU. Presentation was made at Columbus, January 19, by George Crandall, field representative of Columbia's publicity de-

partment. The gift was accepted for the university by J. Lewis Morrill, vice president, and Herbert S. Atkinson, trustee.

The equipment includes a 1000 watt transmitter with phasing unit and antenna coupling, two motor generator sets, three spare armatures and many other pieces of apparatus. The equipment was used by C.B.S. for a short time, being replaced by a larger unit. Its original cost was more than \$25,000.

PUBLICATIONS

Revised Civics Booklet

The National Self Government Committee has announced the publication of the eighth edition of "Civics as It Should Be Taught—Truth About Politics for Tomorrow's Americans," which has been revised to include recent material on civil service and proportional representation. Since 1935, 20,000 copies of this booklet have been published. New copies may be ordered direct from the National Self Government Committee, 80 Broadway, New York City, at a cost of 10 cents each.

NAMES IN NEWS

Superintendents

DR. HAROLD G. CAMPBELL has been reelected superintendent of New York City schools for the second six year term.

DR. RAY E. CHENEY, superintendent at River Forest, Ill., has been appointed superintendent of schools at Elizabeth, N. J. Doctor Cheney will succeed IRA T. CHAPMAN, who retires June 30 after seventeen years in that position.

GEORGE L. HAWKINS, for the last nine years assistant superintendent of instruction, St. Louis public schools, was appointed acting superintendent of instruction on January 20, succeeding HENRY J. GERLING, superintendent since 1928, who resigned at the request of the board of education.

ARTHUR L. RICHTER, superintendent of the Northport Consolidated Schools, Northport, Mich., next year will become superintendent at Nawaygo, Mich.

DAVID H. PATTON, assistant superintendent at Toledo, Ohio, has been elected superintendent of the elementary schools of District 102, La Grange, Ill., effective July 1 when the resignation of J. C. DAVIES becomes effective.

J. PAUL CRODIAN has been reelected superintendent of city schools at Peru, Ind., for a three year term.

A. B. MARTIN is the new superintendent of the Tabasco Independent

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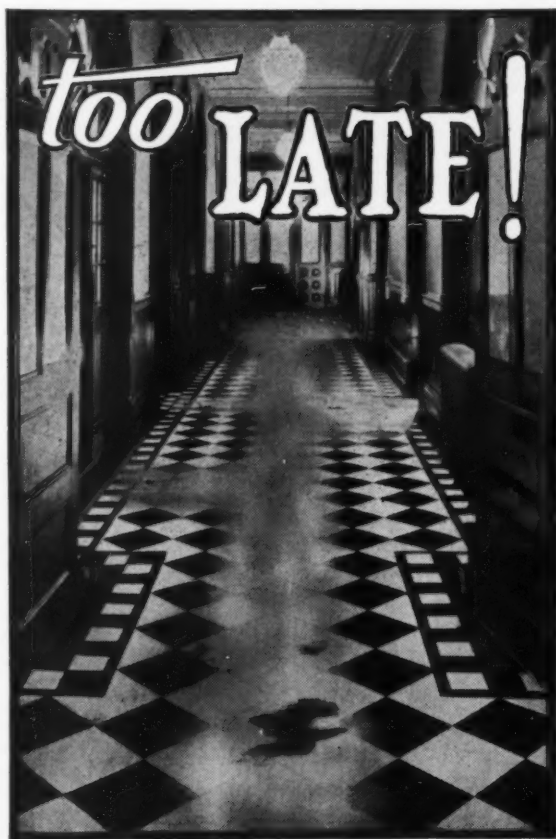
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Sulphuric Acid 77%
Sodium Hydroxide
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Acetic Acid
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School District, La Joya, Tex. He filled the vacancy caused by the resignation of S. D. HENDRIX, who is enrolling for graduate work at Columbia University.

T. N. LAMB, for the last three years superintendent of schools at Bendle, Mich., a suburb of Flint, recently was reelected for a three year term.

SUPT. OTTO W. HAISLEY of Ann Arbor, Mich., recently was named chairman of the Michigan Council on Education. Other officers include: DR. PAUL V. SANGRE, president of Western State Teachers College, vice chairman, and PROF. JOHN R. EMENS, Wayne Univer-

sity, secretary. New members of the executive board are: DEAN J. B. EDMONSON, University of Michigan; SUPT. FRED W. FROSTIC of Wyandotte, and FRANCES MARTIN of Central State Teachers College. *

DR. HAROLD WESLEY TRAISTER, director of secondary education at Beaver Falls, Pa., has been elected superintendent of schools at Grove City, Pa. He succeeds the late HOMER M. B. LEHN.

D. W. BRIDGES, for seventeen years superintendent of Fort Thomas Public Schools, Fort Thomas, Ky., was reelected for a four year term.

Principals

DR. A. T. STANFORTH, principal of Sewanhaka High School, Floral Park, N. Y., has been reelected head of the school for a period of three years, beginning July 1. Doctor Stanforth has been head of the school for eight years.

DAN O. ROOT, head of the mathematics department and counselor at Armijo Union High School, Fairfield, Calif., recently became the principal of the Crystal School, Suisun, Calif., succeeding the late J. J. FINNEY.

GRACE DALE, principal of Central Junior High School, Moline, Ill., is the new principal of the new Calvin Coolidge Junior High School, Moline, which opened recently. C. R. CRAKES, principal of the high school, will also serve as executive of the Central Junior High School.

WILLIAM HAROLD EVANS has been named principal of the West Night High School, Cincinnati, by CLAUDE V. COURTER, superintendent of schools. He succeeds JOSEPH M. LEWIS, who resigned. Mr. Evans has been a science teacher at East Night High School since 1932.

TILDON W. BRIDGES, instructor in the textile school at Leaksville, N. C., has been appointed head of the school to succeed JOHN T. LATHAM, resigned.

WILBUR A. JONES, assistant high school principal at Laurel, Md., has been appointed principal at Upper Marlboro, Md. He succeeds GARDNER G. SHUGART, who has been promoted to the post of assistant superintendent of schools.

DR. HOWARD E. MERITY, now head of the department of education of Seton Hall College, South Orange, N. J., has been named principal of Bayonne Senior High School, Bayonne, N. J. Doctor Merity succeeds the late DANIEL SWEENEY.

MRS. KATHLEEN CLYNE BUTLER, for seventeen years a teacher in the Maple Park High School, Maple Park, Ill., was promoted to the post of principal February 1. She succeeded PAUL W. STONE, principal of both the high school and grade school at Maple Park for more than nine years. The new principal for the grade school has not been announced.

W. C. ROBINSON, principal of the junior high school at Abilene, Kan., was elected superintendent of schools at Abilene, succeeding FRED C. GARDNER, who retired after fourteen years in that position. ALBERT HAWKES was elected principal of the junior high school and M. W. VANOSDOL was reelected principal of the high school.

LAURENCE BAGLEY of Troy, Me., has been named principal of Winterport High School, Winterport, Me., succeeding GEORGE CARLETON.

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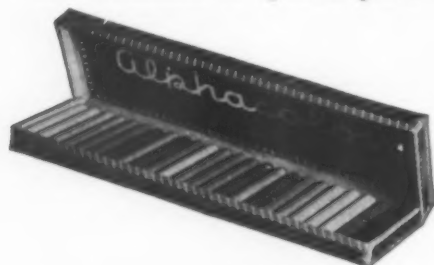
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G. O. PARRISH, now completing his third year as principal of the Los Fresnos High School, Los Fresnos, Tex., recently was awarded a contract for two additional years.

In the Colleges

DR. EARL WRIGHT, for twelve years dean of men at the State Teachers College, Shippensburg, Pa., has been appointed dean of instruction at Shippensburg.

DR. EDWARD BANE ROBERT, professor of education at Louisiana State University since 1935 and curriculum

consultant to the state department of education, has been appointed dean of the university's school of education, effective July 1. Doctor Robert will succeed DEAN CLARENCE A. IVES, who has reached the retirement age of 70 years.

REV. J. J. CALLAHAN has resigned as president of Duquesne University after ten years as head of the institution. His resignation highlighted other administrative changes. REV. RAYMOND V. KIRK, dean and organizer of the university's school of education, will succeed Father Callahan. REV. JOHN

J. SULLIVAN will become vice president, succeeding REV. JAMES F. CARROLL, and REV. EDWARD J. RECTENWALD will succeed REV. HENRY J. GOEBEL as treasurer.

WALTER E. WILKING has resigned as principal of Avoca High School, Avoca, Wis., to assume his duties as a science instructor at Marquette University, Milwaukee.

DR. W. EDWIN VAN DE WALLE has succeeded DR. ARTHUR SULLIVAN GALE as head of the college for men at the University of Rochester.

WALTER SMITH KILPATRICK has been elected president of Cedarville College, Cedarville, Ohio.

DR. J. G. MEYER, dean of education at Manchester College, North Manchester, Ind., since 1925, has become the new president of Milton College, Milton, Wis. He formerly was president of Elizabethtown College, Elizabethtown, Pa.

A. F. MORRIS has resigned the presidency of Hannibal-LaGrange College at Hannibal, Mo.

DR. JOSEPH WARREN BROYLES was inaugurated as president of Snead Junior College, Boaz, Ala., recently.

DEAN W. A. YOUNG, who was appointed acting president of Friends University, Wichita, Kan., upon the death of DR. DAVID M. EDWARDS will continue in that post throughout this school year, it has been announced by D. W. BINFORD, president of the Friends University board of trustees.

Deaths

GEORGE F. BARFORD, who was for sixteen years superintendent of schools at Auburn, N. Y., died recently in Los Angeles. He retired because of ill health in 1937.

CARLYLE A. McALLISTER, 30, principal of South Bethlehem School, South Bethlehem, N. Y., succumbed to a heart attack following strenuous exercise in the school gymnasium. Mr. McAllister had been in the habit of teaching high school boys in the gymnasium one evening of each week.

JOSEPH C. GILL, principal of the Adams Township High School, Cambria County, Pennsylvania, died suddenly at his home of a heart ailment.

SIDNEY S. BOUTWELL, principal of the Terrell High School, Terrell, Tex., died recently following a long illness.

ANNE BROWN, who founded the Anne Brown School, a fashionable New York institution for girls during the 80's and 90's, died recently at the age of 86 years. Miss Brown's school continued until 1902 when it closed. In 1904 Miss Brown built and opened a day and boarding school known as Highcliffe Hall at Park Hill, Yonkers, N. Y.; four years later she retired.



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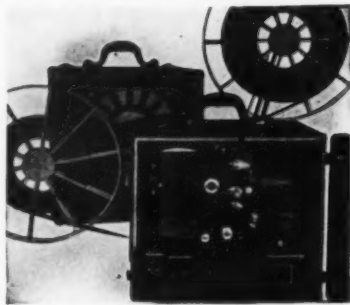
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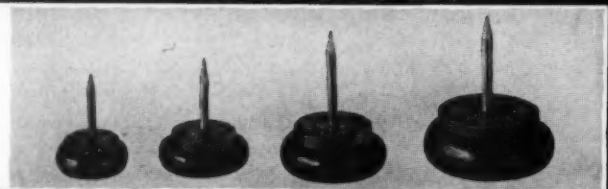
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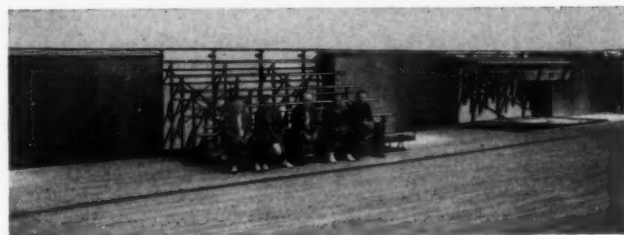
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Miscellaneous

DR. BURTON D. McCORMICK has retired as chief of the bureau of instructional supervision in the elementary education division of the New York State Education Department after nearly fourteen years of state service.

FRED B. PAINTER, supervising principal of east district elementary schools, Ithaca, N. Y., since 1934, has been appointed acting associate educational supervisor of the division of elementary education of the New York State Education Department.

DR. DAVID D. HENRY, acting executive vice president; DEAN WILLIAM W.

WHITEHOUSE of the college of liberal arts, and DEAN WALDO E. LESSENGER of the college of education, Wayne University, Detroit, have been appointed members of an advisory committee that will serve the Michigan state board of education in a project for improving teacher education. The advisory committee will cooperate with a 10 member state teacher education committee of which DR. EUGENE B. ELLIOTT, state superintendent of public instruction, is chairman.

MARCUS A. FATH recently was re-elected president of the board of education at Wildwood, N. J. ARNE RAS-

MUSSEN was reelected vice president and HARRY T. TENENBAUM, solicitor. Mr. Fath recently was reappointed to the board for a five year term.

EDITH V. BRILL, retiring supervisor of elementary grades, Malone, N. Y., recently was given a testimonial dinner by the Malone Teachers Association. Miss Brill has been supervisor since 1923.

JOHN E. HOCH, teacher, Woodrow Wilson High School, Camden, N. J., has been appointed supervisor of attendance of Camden city schools.

EMELYN B. HARTRIDGE, founder and principal of the Hartridge School, Plainfield, N. J., for thirty-six years, and ELIZABETH MAPELSDEN, associate principal for twenty years, will retire at the end of the school year in June. FRANCES HURREY, who has been head of the French department of the school since 1935 and assistant principal since 1937, will succeed Miss Hartridge. HARRIET SLEEPER is to be associate principal.

JAMES S. GUERNSEY, since 1926 headmaster of Shattuck School, Faribault, Minn., has resigned effective June 1 to engage in business in the East.

DR. FREDERIC W. PLUMMER, retired principal of Northampton High School, Northampton, Mass., recently was elected president of Hampshire district, Massachusetts Society for the Prevention of Cruelty to Children.

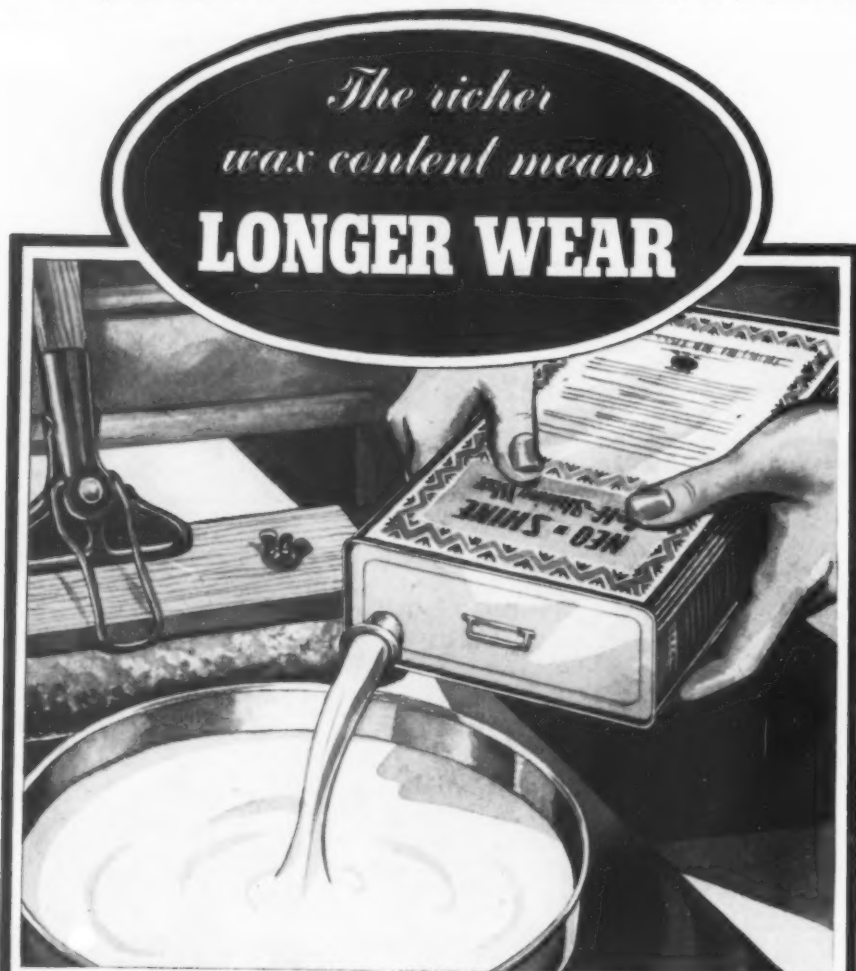
J. JOSEPHINE TUCKER, English teacher at Hathaway-Brown School, Cleveland, next June will become headmistress of Concord Academy, Concord, Mass.

DR. WILLIAM L. FIDLER, supervising principal at Audubon, N. J., and LELIA O. BROWN, teacher at Summer Avenue School, Newark, N. J., were elected president and vice president, respectively, of the New Jersey Education Association. CHARLES A. BROWN, president of the board of education at Union City, N. J., was awarded the association's distinguished service award.

ARTHUR E. WAKE, vocational counselor and lecturer, is the new director of public relations at Woodbury College, Los Angeles. Mr. Wake lectured for two years for the Los Angeles Sales Managers' Association and for a time conducted a radio broadcast on vocational problems. He has done extensive public relations work for educational institutions.

KATHERINE M. BERO has retired after a career of fifty-three years of teaching in the schools of Syracuse, N. Y.

STANFORD J. GIBSON, retired principal and superintendent of schools at Norwich, N. Y., was honored recently by the class of 1939. A bronze plaque was presented to the school as a tribute to Mr. Gibson.



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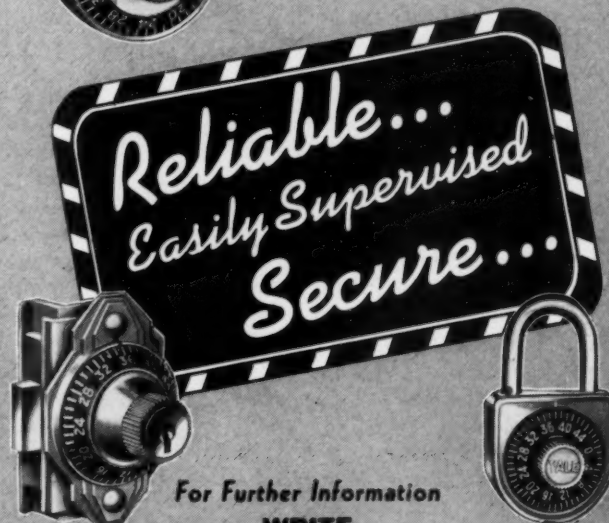
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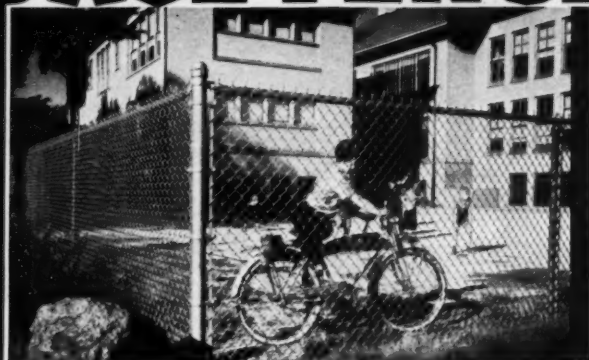
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THE BOOKSHELF

A STUDY OF THE HOMEROOM IN THE INTERMEDIATE SCHOOLS OF DETROIT, MICHIGAN. By Yetta Menenberg. Under direction of John R. Emens. Detroit: Board of Education, 1939. Pp. 114. (Paper Cover.)

Description of practices in a city school system, including an evaluation of practices. Of interest to principals and teachers.

MAGIC DIALS. The Story of Radio and Television. By Lowell Thomas. Illustrated by Anton Bruehl. New York: Lee Furman, 1939. Pp. 142. \$2.

One of the most fascinating books we have thumbed through in recent months. The magic of radio and television in color and in black and white. Of interest to all radio fans. Deserves a place in school libraries.

THE HERITAGE OF AMERICA. Edited by Henry S. Commager & Allan Nevins. Boston: Little, Brown & Co., 1939. Pp. 1152. Illustrated. \$2.40.

The story of the conquest of a continent told directly by those who witnessed the events. This is more than a mere sourcebook; it is an animated

and colorful history that will hold the interest of adult as well as child. It should be a part of every secondary school library.

ECONOMICS AND SOCIETY. By John F. Cronin. New York: American Book Co., 1939. Pp. 473. \$2.50.

Interpretative consideration of economic phenomena from the standpoint of their relationship to democratic society developed as a system based upon the Encyclical of Pope Pius XI entitled "On Reconstructing the Social Order." The author naturally rejects both the fascist and communistic theories of reform for that of reconstruction through democratic processes with emphasis upon rational individualism.

THE DEVELOPMENT OF A COURSE IN THE PHYSICAL SCIENCES FOR THE SENIOR HIGH SCHOOL OF THE LINCOLN SCHOOL OF TEACHERS COLLEGE. By H. Emmett Brown. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. ix+205. \$2.25.

The Lincoln School science curriculum course of study presented in book

form for the benefit of other secondary school teachers.

FLOORS AND FLOOR COVERINGS. By Cornelia D. Plaister. Chicago: American Library Association, 1939. Pp. 75. \$0.75 (Paper Cover).

Advantages and disadvantages of the several types of flooring possible for library use. Informative.

DONN FENDLER. Lost on a Mountain in Maine. As Told to Joseph B. Egan. New York: The Welles Publishing Company, Inc., 1939. Pp. 123.

Real adventure—the story of a city boy's nine days in the Mount Katahdin wilderness.

INTRAMURAL SPORTS. By Elmer D. Mitchell. New York: A. S. Barnes and Company, 1939. Pp. viii+324. \$2.

A standard work in institutional recreational programs brought up to date with many effective illustrations.

PEOPLE. The Quantity and Quality of Population. By Henry Pratt Fairchild. New York: Henry Holt and Company, 1939. Pp. 315. Illustrated. \$2.25.

Some pertinent facts concerning the extent and nature of population are presented in an easily understandable style to the layman by a scientist of high standing. His deductions concerning the future of population are

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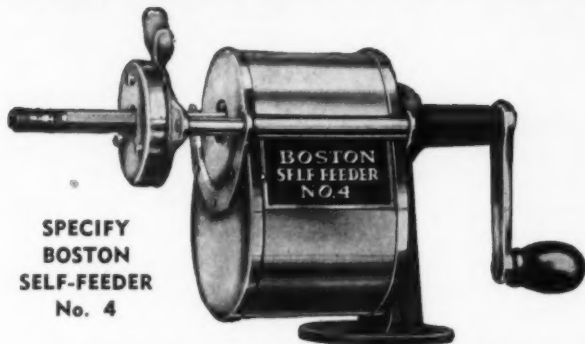
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THE AMERICAN COLORIST. By *Faber Biren*. Westport, Conn.: The Crimson Press, 1939. To be used with the American Color Packet. \$1 (Paper Cover).

Attempts to acquaint the layman with principles of color harmony and to establish a new and simplified system of color standardization for use by anyone concerned with color. Of particular interest to art teachers.

A CENTURY OF PUBLIC TEACHER EDUCATION. By *Charles A. Harper*. Washington, D. C.: National Education Association, 1939. Pp. 175. \$0.50 (Single Copy).

Brief history of the rise and evolution of specialized teacher training institutions from the normal school to the teachers' college.

FROM NAZI SOURCES: WHY HITLER CAN'T WIN. By *Fritz Sternberg*. New York: Alliance Book Corporation, 1939. Pp. 208. \$1.75.

An eminent economist who is also a competent military observer presents a searching analysis of conditions within the totalitarian countries, particularly Germany, from Nazi source material and reaches the conclusion that national socialism is doomed in any long drawn-out conflict.

TRADE NEWS

Reproduces Line Drawings

A new method of making duplicate copies of ink drawings in quantity has just been announced by A. B. Dick Company, Chicago, makers of the mimeograph duplicator.

This is accomplished by means of a new brilliant light source. By exposure to this light in the mimeograph photochemical printer, any opaque drawing on translucent cloth or paper can be transferred to a sensitized stencil sheet. The stencil is then developed and placed in the mimeograph duplicator for accurate black-and-white reproduction in quantity.

Time of the procedure from finished tracing to finished copies is generally less than twenty-five minutes. Price of materials for producing the stencil is under 25 cents, on the average.

Drafts, Causes and Corrections

Results of a study of one of the most elusive problems in the heating of school buildings has been released by the C. A. Dunham Company in a brochure entitled, "Drafts, a Study of

Causes and Their Correction." This booklet reports the results of research revolving around conditions encountered in the use of unit ventilation equipment. The study points out that where such units are often considered at fault, the real causes are frequently found in the control or operation of the heating system itself. Many simple corrections are suggested. Requests for a free copy of the brochure should be made on school letterhead to the C. A. Dunham Company, 450 East Ohio Street, Chicago.

New Blackboard Cleaner

The American Crayon Company is manufacturing a new type of blackboard cleaner which entirely eliminates all washing of boards, slate, glass or composition.

The new article is called the Hygieia Chalkboard Cleaner. It is a simple device, a holder which fits the hand comfortably and into which is inserted a reversible cleaner. One side is cellular latex, which obliterates the chalk marks from the board. The opposite

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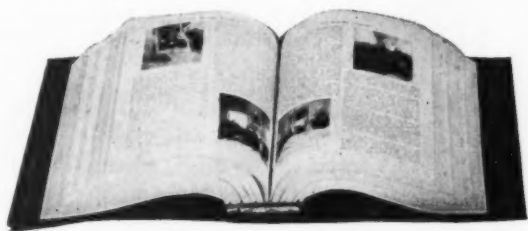
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side is of lambskin, which cleans the board, actually removing every vestige of chalk dust with one stroke of the cleaner.

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Schools Install Hammond Organs

When a new Hammond electric organ was installed in the large auditorium at the new high school at Norwalk, Conn., recently, elaborate ceremonies marked the dedication of the new musical instrument. Mrs. Loretta Flynn, a member of the staff of the Hammond organ studios in New York City, performed at the organ, assisted by Joseph J. Gibney, soloist, and a male choir. With the installation of the organ, musical activities in the high school will be expanded and courses in organ study will be added.

The electric organ has been installed in more than 250 schools and colleges throughout the country during the last four years. Some high schools in which it recently has been installed include the following: Hempstead High School, Hempstead, N. Y.; Center High School,

Ridgefield, Conn.; Commercial High School, Savannah, Ga.; New Ulm High School, New Ulm, Minn.; Senior High School, Waterville, Me., and Bellingham High School, Bellingham, Wash.

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Designed for School Use

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theatrical framing with no change of projector position, and efficient cooling of projection lamp. The lamp itself is quickly changed and the lamphouse remains cool after long operation.

Proper Use of Saws

E. C. Atkins and Company, Indianapolis, manufacturer of the Atkins Silver Steel saws, is offering aids for teaching the proper use and care of hand, rip and panel saws. Demonstration saws are being loaned for periods of eight weeks to instructors who request them by writing on school letterhead or are sold at cost. Practice filing strips also are sold. Available for free distribution in nominal quantities are "Saw Sense" booklets, which show many patterns of hand, rip and panel saws, circular saws and other tools used in industrial arts classes.

Personalities in the Trade

E. J. Shields has been placed in charge of the new branch factory and sales office opened recently at Three Rivers, Mass., by the J. E. Burke Company, Fond du Lac, Wis. A complete stock of the radiator furniture and playground equipment manufactured by this company will be distributed from this point to the New England area.

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CONTENTS

For April 1940

Looking Forward	17
Learning Homemaking in Special Cottages, Lester K. Ade	20
A Wife's View of the Convention	24
School Cost Nonsense, Arvid J. Burke	25
Bored? Try Dissecting a Frog	26
How to Apply for a Teaching Job, H. D. Eldridge	27
If I Were the Boss, Lloyd H. Hayes	28
Taking Roll by Time Card, West J. Altenburg	29
Your Friend the Census Taker, William Lane Austin	31
Quack Vocational Schools, David L. Fiske	49
Pupil Commencement Speakers Interpret the School, Glenn Holder	50
Quality at Low Cost, Peter E. Brender	52
Rural Guidance Is Different, J. Roy Leevy	55
Developing a Materials Room, Aurelia Davis	56
Two Schools in Montana, Fred A. Brinkman	57
Why Good Children Are Good, Frank L. Van Alstine	60
Selling Educational Innovations, William E. Hayes	62
Measuring Teacher Load, Charles Everett Myers	64
Tenure Does Not Lock the Exit, M. M. Chambers	66

Portfolio of Summer Renovations

Planning a Proper Budget for Maintenance, John W. Lewis	34
Protect the Investment, Arthur B. Mochlman	34
Resurfacing the Playground, C. L. Crawford	36
Let's Consider Color, H. H. Linn	38
New Life for Furniture, Walter C. Hawkins	40
Care of Wood Floors, L. C. Helm and K. P. Grabarkiewicz	41
Fair Play for Floor Brushes, Charles Ethington	43
School Housekeeping Suggestions	44
Economies in Maintenance, Dan R. Kovar	45
Vacation Care of Equipment	46
Cleaning Up the Boiler Room, Clarence E. Stevens	47
Scrub-Up Time for Walls, Troy D. Walker	48

The School Cafeteria

"Stagger" System Stops Crowding, Gustave A. Feingold	70
Food Cost Tables—Beans, Grace S. Saunders	76

Better Plant Practices	4	On the Air During April	84
Index of Advertisers	15	Coming Meetings	88
Chalk Dust	54	Film Releases	90
As Others Say It	68	Names in the News	92
News in Review	78	The Bookshelf	96
Films in Review	80	Trade News	100

Side Glances—

SCHOOL administrators and business officials have their expenses paid to conventions quite as much to study the new equipment on display as to listen to platform addresses and to exchange ideas.

An exhibit of new equipment, supplies and construction material is held each month in The NATION'S SCHOOLS. There is no better way for the schoolman to keep posted on such developments than through a careful reading of the advertising columns and through a study of the information in the catalogs and engineering data offered.

This month The NATION'S SCHOOLS, in cooperation with manufacturers, inaugurates a totally new idea in publishing. We refer to the detachable, noninterfering coupons to be found in the margin of many advertisements. The schoolman can now remove a coupon without interfering with editorial text or with advertising matter.

The idea is so simple that advertising men wonder why no one ever thought of it before. Now when you send in your monthly batch of coupons, you destroy nothing and gain a great deal.

THERE are still 130,000 one teacher schools and in many of them the youngsters sit with dull eyes and drooping posture. They are just plain bored with studies remote from their daily experiences. How ideally situated for an activity program these rural schools are is the theme of an article for the May issue written by Dewey Friscoe.

BBETTER Plant Practices will be found on pages 4 and 6 in this issue.

Published monthly by The Nation's Schools Publishing Co., Inc., 919 North Michigan, Chicago, and 101 Park Avenue, New York. Otho F. Ball, president; Raymond P. Sloan, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. Yearly subscription, United States and Canada, \$2; foreign, \$3. Current copies, 25c each. Member Audit Bureau of Circulations. Copyright, 1940, by The Nation's Schools Publishing Co., Inc. Entered as second-class matter Jan. 16, 1928, at the Post Office at Chicago, Ill., under the Act of March 3, 1879.

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LOOKING FORWARD

C.C.C.

THE appointment by the President of James J. McEntee of New Jersey as the second director of the Civilian Conservation Corps is assurance that the educational and conservational policies of the late Robert Fechner will be carried out.

During the last six months there has been considerable agitation for the development of these camps as army training centers. Neither the President nor Director Fechner was much impressed with this demand. The late director believed wholeheartedly that the real purpose of these camps was to build morale, provide certain types of vocational training, repair major educational deficiencies and assist constructively in conservation programs. The camps were accepted in this spirit by the people. To transform them into recruiting and military training camps would not be of great service to the army and would draw the criticism of a large group of citizens. The President is to be congratulated upon maintaining the original purpose of the camps and in appointing as director the former assistant to Robert Fechner.

Questionable Taste

THE emotional statement by the secretary of the National Education Association at a general session of the American Association of School Administrators at St. Louis in February, criticizing President Franklin D. Roosevelt for his "inaction in behalf of public education," seemed not only in questionable taste but not strictly in accord with the facts. The silence that greeted this statement indicated that the larger portion of the audience also felt that the statement was unjustified. A 1936 statement in the official journal of the National Education Association entitled "The Raw Deal in Education" falls in the same category. If President Roosevelt had been inactive with respect to support for public education, the National Education Association, through its official statements and through its lobby on the hill, would have been itself largely to blame. The facts are that through regular and emergency appropriations the federal government has contributed almost a billion dollars to public education since 1934. Even in these days of large sums, this is no insignificant amount.

While the majority of the teaching profession, as well as many laymen, believes that extended federal aid to public education is necessary for education's improvement and the equalization of individual opportunity, there is by no means general agreement as to method of furnishing this aid. The teaching profession is split wide open on the form that federal aid should take. If the National Education Association advocates a specific program which, by the way, fits in closely with its own interest group procedure in membership campaigns, it should not become disturbed if the President and the Congress refuse to accept these demands with open arms.

Public education is a state function and is popularly controlled. The people are not going to turn their schools over to a special interest group, no matter how worthy or presumably altruistic, without giving the problem their most careful scrutiny. Even if the National Education Association represented all of the teachers instead of a small minority, it should never forget that in the United States the schools belong to the people and that this decentralized community control is something extremely precious and is a specific safeguard against possible centralization and use of the schools by any existing government for partisan ends.

During the last decade we have discussed federal aid with many members of the federal government and it is our conviction that both the President and those members of the Congress who have a specific interest in public education are fearful of initiating any program that will permit the federal government through its civil bureaucracy to control the program of public education. Most of these officials appeared to favor a plan for federal aid that would equalize opportunity without controlling. These men favored, specifically, aid through N.Y.A. to individuals who cannot take advantage of existing opportunities because of lack of means and aid for essential buildings, upon which the rate of structural reorganization depends. Both of these fields will enable the federal government to make a contribution without controlling the vital instructional program.

Government officials are exceedingly dubious about large general appropriations or direct aid for teachers and instructors because they realize the dangers of control. Their general sentiment, also expressed at

one time by the President himself, is that until the people and the educators can unite around a rational program of federal aid that will also produce improvement of the existing agencies within states, there is little possibility that the Congress or President will act. Emotional criticism of the President or of the Congress for not accepting the dictation of a minority interest group is not going to improve the situation. We respectfully suggest that the National Education Association attempt to view this problem more realistically and less emotionally.

Correspondence Education

THE 1939 Montana Legislative Assembly approved an act that establishes a correspondence division in the state superintendent's office. The purpose of this act is further to equalize opportunity for individuals unable to attend a high school because of location, physical or health reasons or who need subjects not offered in the school of which they are members. Montana has recognized correspondence study as supplementary to general secondary educational effort in meeting special problems. It has wisely placed the responsibility for organization and direction with the state education authority instead of permitting advanced institutions of learning to dominate the secondary school program or allowing local districts to establish contractual relationships with private corporations.

The acceptance and recognition of correspondence study should be carefully studied and cautiously approached. If the usual zeal for new activities works in this field, it may be more harmful than helpful to the total secondary school program. If correspondence study is considered an essential supplement under unusual conditions to general provisions for public education, it should be placed under the state authority. Montana has set a good example in early recognition and control.

A Challenge

THE protest against the continuation of local, state and federal taxation at current levels is spreading rapidly throughout the country. Individuals, organizations and the press are engaged in a campaign for tax reduction that promises to attain effective proportions. Farmers and city dwellers want their homesteads exempted from taxation; the grange, the farm bureau, manufacturers' associations, public utilities and chambers of commerce are demanding fewer and lower taxes. Aggressive lobbies are being planned at state capitals and at Washington to force acceptance of these points of view upon the legislatures.

The development of a critical attitude toward taxation is the beginning of a healthy attitude toward

government. If properly directed and objectively carried out, this movement should gradually produce changes in both tax structure and methods that will increase the efficiency of collections and expenditures. If this movement proceeds along constructive lines, it cannot help making a distinct contribution to the improvement of fiscal policy; if it advances subjectively and unintelligently, it may do more damage than good.

The weaknesses of current fiscal practices are well known to all students of government. The tax structure is unbalanced and there is undesirable duplication between local and state as well as between state and federal governments. The federal administration has recognized this need and is studying the problem of providing a modern streamlined system of taxation. Its specialists may be expected to complete their studies and make their recommendations in the near future.

The second tax weakness lies in archaic and expensive methods of collection. While the federal government operates efficiently in this respect, both state and local governments are characterized by loose and inefficient methods of administration in the collection of taxes. In the opinion of tax specialists the balancing of current tax methods and the modernization and centralization of collection practices within the several units of government would produce sufficient additional revenue to provide adequately for current social services without any increase in the rates of taxation! The third weakness is the continuation of obsolete and extravagant forms of local governments, such as the township and the rural school district, which results in the extravagant use of tax monies in relation to service rendered.

We are in complete sympathy with any movement to study the tax problem objectively and to insist upon improvements that have been long overdue.

Among the more aggressive pressure groups now working on this problem is the United States Chamber of Commerce and its thousands of branch organizations in cities throughout the country. This organization is rapidly creating state secretariats whose primary responsibility is to fight against increased taxes. If the state organizations would approach the problem objectively and scientifically, the result might be helpful. However, these state organizations have few men who are even reasonably expert in the field of taxation. Judging by their current propaganda and emotional approach to the problem through the press and motion pictures, it would not be an exaggeration to say that they exhibit an almost complete lack of technical knowledge of the problem under consideration. Instead of studying the technical aspect of taxation and seeking ways and means of improving tax laws, and instead of giving consideration to the urgent reforms necessary in local government, they are proceeding blindly and emotionally on the program of general tax reduction without relating their demands to a

review of essential social services. This approach is dangerous and demands the most careful scrutiny from every individual interested in good government.

In their simplest form taxes are the cost of services for which the people provide cooperatively.

An illustration of the point of view of the chamber of commerce leaders is their attitude toward public education. As recently expressed by an official representative of the United States Chamber of Commerce, this view may be summarized somewhat as follows: "Surface analysis indicates that public education is spending large sums for the maintenance and improvement of the schools." Without regard for the need for educational services, this group insists upon drastic tax reduction. The individuals in charge have not called in capable students of educational needs and had them analyze the program of educational needs. Instead, they have proceeded in most ignorant fashion to demand reductions in program. They state that too many of our youths are in college and that a university education does not help business. They overlook the need for the development of professional training in engineering, medicine, law, teaching, dentistry and agriculture. They apparently forget that the present stage of technological efficiency in the United States is the result of contributions made by graduates of universities and technical schools. They also appear to be unaware that the solution of our serious agricultural problems and the conservation of our exploited natural resources are contingent upon the degree of scientific training that can be brought to bear upon these problems. They reject the social and economic need for realistic mass secondary school education in the vocations and in socio-civic areas.

Their present efforts indicate a desire to destroy even the current attempts toward educational opportunity whereby each child has a chance to develop his inborn capacities to make the greatest possible contribution to the general social welfare. The carrying of their ideas into practice would ultimately mean a mass and a class education, a social and economic stratification that bodes ill for our democratic concepts.

We cannot believe that these attitudes grow out of a desire to destroy our democratic plan of life but rather out of ignorance of the problems involved. If the officials of the organization would consult specialists in education, sociology and taxation, the United States Chamber of Commerce might be saved from gross error. These men also misjudge the American people. While the average individual wants lower taxes, it is just as certain that he does not want these reductions if they mean the decrease in opportunity for his children. As this issue becomes more obvious, there will be a rising tide of emotion and action against the ill-advised current pressure practices.

The solution of this problem lies with the teaching profession. The value of public education is not going

to be decided at the state capitals or at Washington, but within the community. The safety of the public schools and the retention of opportunity for children and youth depend upon the parents of children. The means of preventing a complete debacle of the principle of equal educational opportunity lies in the development of so strong a grass-roots public opinion with respect to adequate support within the community that it will withstand all assaults.

The immediate need for every school community is to start and to maintain an aggressive program of institutional interpretation based upon the broad principles of democratic education, free and open to all. The concept is all important. If the teaching profession, the members of boards of education and the parents of children can be made to realize that the welfare and opportunity of American children are at stake, they will react in such a manner that the program of the United States Chamber of Commerce will inevitably be nullified.

Every intelligent man or woman welcomes a scientific attack upon the problem of tax improvement, but no one who believes in the great American dream of equality of individual opportunity for our youth will stand blindly by and see young people robbed of their heritage by ill-advised attacks that have a noticeable odor of antidemocratic ideologies. Man does not exist for the state or for the benefit of economic processes. The welfare of our youth is of greater importance than increased dividends. Unless there is the same spontaneous development of an aggressive public opinion that developed in 1933 when the similar attacks were made, untold damage may accrue to our democratic institutions.

No Applause Desired

A teacher just returned on furlough from the Orient offered this one:

On the outskirts of Calcutta is a Christian church. Nearby are several good-sized swamps which the mosquitoes consider their home. One Sunday a battalion of kilted Gordon Highlanders was marched to the morning services. Not in their wildest fancy had the neighboring mosquitoes expected a treat of bare highland knees and thighs. They soon filled the dimly lighted church with their annoying song of satisfaction. In time even the stoic highlanders gave way to their feelings and the sound of hands against bare thighs sounded almost like handclapping. So thought the rector, who stopped in the midst of his sermon and said: "Gentlemen, your appreciation is indeed gratifying, but I must insist upon silence. A church is no place for applause!"

The Editor

Learning Homemaking

LESTER K. ADE



Homemaking pupils at Steelton, Pa., use modern laundry equipment on washday.

MAKING education more life-like is a dominant trend in modern education. With experiencing as the essence of education, it becomes increasingly important that the principle of learning from living should be more widely applied in the school program. This trend is nowhere more concretely illustrated than in the use of homemaking cottages in teaching the art and science of homemaking as carried out in Pennsylvania.

In this program the facilities, materials and procedures employed by the school are practically identical with those used in the homes of the pupils. Learning thus becomes continuous. It engenders an appreciation of the home function, reveals

the natural rewards of proper family living, leads to an understanding of the art and science of homemaking and develops practical abilities, wholesome attitudes and worthy ideals of home life in the pupils.

Viewed in its entirety, Pennsylvania's program of homemaking education emphasizes not only the vocational aspects but also such phases as personal, family and community relationships, child development, efficient management of income and desirable consumer needs. It likewise gives systematic consideration to the relation of homemaking to leisure activities and its possibilities in developing for girls and women vocational interests closely allied to homemaking.

At the present time approximately 750 secondary schools offer homemaking education as a part of the school program. Enrolled in this field of work are more than 20,000 pupils in addition to some 2500 others who are pursuing similar activities in 80 small rural secondary schools under the direction of regional supervisors, who offer day unit courses.

From the beginning, the planning of homemaking cottages constitutes a truly cooperative enterprise. It involves the participation of the school



Ten room house at Hatfield, Pa., is well equipped for teaching purposes.

in Special Cottages

President, Mansfield State Teachers College, Mansfield, Pa.

administrators, teachers and pupils, as well as architects, contractors and manufacturers. Thus the project, even in its inception, is one that tends to unite various interested groups of the community into a close partnership for a worthy cause.

Homemaking cottages in Pennsylvania are the result of an evolutionary process. It was not long ago that homemaking education was considered an exclusive function of the home. As the status and conditions of home life changed, the need for instruction in the art of homemaking became evident and classes were begun. These classes were accommodated in one of the regular classrooms of the school. As the needs for homemaking education increased, special classrooms for the purpose were established. Later, homemaking education departments were initiated in some of the schools in larger centers. These led to the development of entire portions or wings of school buildings devoted to the homemaking program.

The next stage in the evolution was the renting of a house in the vicinity of the school which could be remodeled and renovated in accordance with the requirements of home-



Learning meal preparation in the homemaking cottage kitchen, East Greenville.



Personal appearance is stressed in the homemaking program at Hatboro, Pa.

making education. The newest phase, and the one in which we are at present interested, is the erection and use of homemaking cottages perfectly adapted to the activities necessary for an adequate and well-rounded program of homemaking education.

Homemaking cottages, when properly constructed, are architecturally suited to their environment. They harmonize with the structures that surround them and are enhanced by an attractive landscape. Naturally, the plumbing, heating, lighting and other essential features of home comfort are planned in accordance with modern, practical standards.

Thus, homemaking cottages manifest an individuality in accordance with local conditions. In Pennsylvania, the aim has been not to make



A meal is served on a tray to a patient. Home care of the sick and of convalescent patients is a part of the homemaking program at Abington, Pa.

these structures overelaborate or ostentatious but to construct them so as to provide a reasonable replica of the modern, well-furnished average home. Naturally, the cost varies from place to place as well as from year to year. This fundamental factor is given careful attention in planning the cottages. However, several other factors are preeminently considered, such as convenience, flexibility, healthfulness, safety, attractiveness and efficiency.

Specifically, the plan for the homemaking cottage must recognize the growth of the school program, the anticipated enrollment by grades, the policy of the school with respect to term and class periods, the organization of the homemaking program in the school, the need for a school lunch, the economic status of families and the social needs of the community.

There are distinct advantages in having a homemaking cottage apart from the other units of the school plant. The separation assures freedom from interruption. It encourages greater concentration and offers a new concept for educational techniques in other fields. In the homemaking cottage unit it is possible to create an atmosphere conducive to the spirit of homemaking. It affords a homelike center for boys and girls and frequently becomes the heart of the school social life.

Most cottages are owned by the school districts and have been constructed at a cost ranging from \$5000 to \$35,000 per unit. A few are rented. The average size of the homemaking cottage in Pennsylvania is eight rooms. The cottages are commonly provided with hot air or steam heat. Where janitors are not available for the cottage, the pupils assume this household responsibility. These units of the school plant function in three ways, namely, as residential quarters, as instructional facilities and as social centers. Out-of-school groups frequently avail themselves of the homemaking cottage for their activities. Parent education classes are frequently conducted in them. Music and art organizations find homemaking cottages a convenient and appropriate place for some of their projects and certain types of recreation go forward there during the summer months.

As in any other modern school plant construction, the interior of the cottage is systematically adapted to the specific purposes that are to be served. The modern home is used as a pattern and basis for the arrangement of the interiors. They are likewise planned in accordance with the needs of the school system in general, as well as of the homemaking department in particular. The objective of making this phase of the public school program as progressive

and effective as possible is kept constantly in mind.

Another criterion in the arrangement of the interiors of the cottages is facility in demonstrating good technics of the homemaking arts. Here, again, the same principles which science prescribes for the home will apply in the school cottage. The scope of the program and the class procedures determine largely the pattern of the interiors. The cottages must anticipate growth in program and changes in procedure.

The equipment for the homemaking cottages in Pennsylvania, which consists of normal home furnishings, costs somewhat less than the laboratory type of equipment frequently used in homemaking laboratories. In choosing equipment for the cottages, careful attention is given to the major phases of the program which are carried forward. These include the care and use of furniture, the selection and preparation of foods, making and altering clothing, laundering, child care, the care of the sick, household budgeting and family relations. The number and size of classes obviously determine the extent of equipment required to accommodate these various aspects of the program.

The program is worked out by years and semesters, each period providing learning opportunities in certain areas of home experience. Among these areas are the following:

Food: A new emphasis in the foods curriculum is on consumer buying. However, the common responsibilities of the homemaker are likewise given adequate attention. Meal planning and the selection, storage, preparation and serving of foods are vital parts of the instruction. Cleaning, care and arrangement of dishes and utensils are included in the program.

Clothing: Consumer buying is an essential phase of instruction. Prospective homemakers are afforded the opportunity to gain experience in planning and selecting wearing apparel. They are also given opportunities to reconstruct, repair and renovate clothing.

Child Care: The homemaking cottage is especially well suited for instruction in child care. Students under the proper supervision not only select food and clothing for infants and children, but arrange a

day and night schedule of services and activities for youngsters. They study the needs of children with respect to sleep, play and social relations, and attempt to discover safe and effective technics in administering to these needs.

Home Health: Since the average American home is confronted with problems relating to illness of the family, the care of the sick is a part of the homemaking program in Pennsylvania. Good health relates to every other responsibility in the home and elsewhere. The program goes much beyond the administering of first aid; it comprises administering to the common needs of bed patients, the adjustments of hospital beds, the care of linens, sanitation processes in caring for the sick and the like.

Home Management: Home management is learned through practice rather than through prescription. Accordingly, the pupil residents of the homemaking cottage assume full responsibility for the general management of the home. They anticipate and meet personal and family problems, such as the selecting and arranging of furniture, the cleaning of the rooms, the arrangement of interior decorating and such other activities as commonly confront the average homemaker. For these purposes movable equipment is found most desirable.

Family Relations: With respect to teaching family relations, the school situation approaches as nearly as possible the home situation. The homemaking cottage becomes a homelike social center, with relationships extending into community interests. The spacious living room or the combination living-dining room and living-clothing room are the focal points for the development of wholesome family attitudes. At the same time, these facilities may be used to accommodate community gatherings or the meetings of classes, clubs, committees and friends.

Self-Development: Permeating all the activities that go forward in the homemaking cottage is the conscious, purposeful development of the individual in relation to his natural and social environment. As special means of personality development, however, leisure activities, including hobbies, are made a vital part of the homemaking program. Exercising careful guidance over the individual de-



Treatment of the various injuries that may occur in the home is taught by a nurse. Here a girl's foot is being bandaged under special supervision.

velopment of pupils is the sympathetic and understanding counsel of members of the faculty and other proper supervisors.

It is evident that the homemaking cottage not only is an ideal device for the effective teaching of the homemaking arts but is a model illustration of how education can be made lifelike in any other sector of the education program.

The objective of instruction in homemaking and the types of activities essential to their achievement are the basic guides in deciding upon the general plan of arrangement in the homemaking cottage, in selecting styles and in determining the number and placement of specific pieces of furnishings and equipment. Other factors requiring careful consideration in making these choices are size of classes, type of class organization and available space and money.

The general plan of the work centers for food preparation and food service should approximate as nearly as possible a home situation. In selecting and arranging equipment for clothing, it is important to keep in mind working conditions and facilities in the homes of the community.

The equipment provided for instruction in home laundering will also vary according to local practices and desired outcomes in relation to this particular activity in each school.

The minimum of one laundry center may be considered adequate for most departments.

The study of health and home care of the sick necessitates little special equipment if certain fundamental articles are selected with the needs for the various purposes in mind. For the study and guidance of children, management of resources in the home and maintenance of satisfactory family relations, the furnishings and equipment of the entire homemaking department may be adapted to many of the activities, making necessary little in the way of special equipment.

Construction, materials and finishes should be considered carefully in buying all furnishings and equipment and the purposes to be served.

School and lay folks alike in these Pennsylvania communities having homemaking cottages are enthusiastic over this natural, modern educational practice. The activities carry over into the pupils' home life. There is every evidence of a substantial increase in the all-round development of pupils.

These desirable outcomes have won the deep interest and strong support of parents and patrons of the school through their lively interest and participation. There is notable improvement not only in the school and home relationships but in the morale of the entire community.

A Wife's View of the Convention

By A SUPERINTENDENT'S WIFE

IN reading the reports of the A.A.S.A. convention each year I always note that 10,000 schoolmen were in attendance. Women are never mentioned. The fact that perhaps a few of these "educators" may have wives is never taken into account in this annual mélange of minds.

After all, the place of the wife of a school superintendent is that of the silent partner: ready to answer



While excellent speakers, brought to the convention at great expense, are delivering fine addresses, schoolmen in the audience are squirming about in their seats worse than school pupils.

phone calls, to attend P.-T.A. meetings, to provide programs and to soothe irate parents.

There is no place for her at a convention, not even a discussion group in which to share her problems with kindred spirits! However, each year a few brave wives do tag along. For several years now I have been a convention follower and each year I have come away with definite impressions that cry out for an airing.

I am ready to admit that there are 10,000 schoolmen in attendance although I question the statement that there are 10,000 "educators" there.

Among the 10,000 I see some of the finest looking men I have ever seen anywhere, and on the whole men of whom the profession may well be proud. I also see men of a different sort; slovenly, unkempt in appearance, they have dirty fingernails and spots on their clothes. Some are badly in need of haircuts.

The conduct of the "educators" assembled to hear an important program is worthy of comment. I often wonder if they would tolerate such behavior in their pupils during a school program. While excellent speakers, brought to the convention at great trouble and expense, are delivering fine addresses, many among the audience are reading newspapers, writing letters, chewing gum, scratching their heads, pulling their noses or carrying on whispered conversations with their neighbors. This year while a most interesting program was in progress I actually saw one man, wearing the gold badge, too, take out his penknife, open the small blade and use it to pick his teeth. Later he cleaned his nails with it.

On the other hand, there are many who open notebooks, take out pens and assiduously write an account of all that is said during the session.

The men on the platform may be at fault for not furnishing a more inspiring example. To a lady, who has been taught not to cross her legs, it calls forth real envy to watch these men slouch into place, cross their legs and allow their socks to dangle. Even a dress suit and the rays from a Phi Beta Kappa key cannot conceal such a multitude of sins!

I pick up much in the way of entertainment and information while sitting in the hotel lobby waiting for my husband who, poor benighted soul, attends a convention to get all the information and improvement he can. Consequently, he attends every session and stays until the janitor sweeps him out with the cigar stubs. Hence, I wait, and as I wait, I listen. All the schoolmen seem to be heroes in their own schools! They can tell how to solve any problem successfully; they can ill conceal their jealousy when speaking of higher-ups, and they agree that there is more to be gained by visiting in the hotel lobby than in attending meetings or directed discussion groups.

Often through the deep blue smoke of the hotel lobby I catch the gleam of Phi Beta Kappa keys shining out upon some pompous paunch or decorating a portion of some spare ribs and then I wonder. I wonder if these keys, so conspicuous at all A.A.S.A. conventions, are not worn merely to show the world that these men belong to the I AM SMART Club. Perhaps that accounts for their behavior at the meetings. They depend upon their keys to declare their intelligence; hence, they make no effort to display it.

You may think this is a case of "sour grapes" and that I am envious because my husband has not attained platform prominence at these gatherings. This is not the case. True, I would be happy to see my husband seated on the platform and honored among men, but I am prouder of his accomplishments in our own small town! He has not aspired to heights in the realm of schoolmen. He merely tried to be a good teacher and, unexpectedly and accidentally, found himself a superintendent. He has tried earnestly and sincerely to fill that position well.

As I sit looking over this vast throng of 10,000 schoolmen, I am



Some schoolmen can tell how to solve any problem successfully; they agree that there is more to be gained by visiting in the hotel lobby than by attending meetings or discussions.

more than proud of my husband for his ability to place character building above school politics and character above advancement of position.

School Cost Nonsense

ARVID J. BURKE

Director of Studies
New York State Teachers Association

AGENCIES, research and non-research, promoting tax reduction are giving wide publicity to school cost nonsense. Typical examples are the following misleading statements:

"If costs per pupil in this state were reduced to the rates in Indiana's modern school system, it would mean a reduction of about \$142,000,000 in educational expenses in New York State."

"If New York's unit cost per pupil were the same as in Michigan, it would mean a reduction of \$117,000,000 under present costs."¹

"If —'s per pupil costs had been on the same level as the next highest city, Lansing, Mich., — would have spent \$137,000 less than was actually spent in 1937-38."²

What is wrong with the statements? Costs are confused with expenditures. Per pupil expenditures are mistaken for unit costs. Difficult, if not impossible, to prove assumptions are treated as known facts. Thirty or more cost variables are disregarded.

Terms Need Clarifying

Cost often is used interchangeably with expenditure but the two terms need clarifying. Cost, in the sense used in financial accounting, means the value in money of goods and services used. When \$500 is spent for instructional supplies, the total cost does not come into existence until all the supplies are used. The annual cost is the monetary value of that part of the goods and services used during the year. Annual expenditure, on the contrary, is a statement of money paid out during the year; part of the goods and services purchased may not be used during the year; other goods and services, paid for in the past, may be used but may

not appear in the statement of annual expenditures.

Public school costs in an economic sense are different from the annual financial expenditures involved. It is true that goods and services are consumed in the process of education; it is true that there is a loss of goods and services resulting from the withdrawal of children, teachers and other school employes from other productive endeavor. Yet, it is also true that human values, standards, wants, health, habits, knowledge and skill are the basis of all wealth and wealth production and that public education, even in its most elementary form, contributes value to natural resources and human endeavor. It creates wealth and makes it possible to produce more and better goods and services. The value of land, capital, labor and professional skill all depend upon public education. Take away even universal literacy and the American economic system would collapse.

It is possible that schools really cost nothing, that is, they contribute more value than the value of goods and services destroyed and not produced because of education. At least it is possible that public schools cost but a fraction of their annual expenditure.

Per pupil expenditures are not unit costs. Per pupil expenditure is nothing more than a common denominator for the amount of money reported as being spent under the designation of education. Expenditures that may be charged to the school accounts in one place, such as health service, public libraries or electricity, may be charged to the general government accounts in another place. A unit cost, on the other hand, implies a standard for measuring the quantity and quality of a product in relation to its cost.

A single unit for measuring the quantity and quality of education in relation to its cost may never be

found. At present, the study of total or current educational costs requires not one but a great many units for measurement, as illustrated by the following examples. Many kinds of classroom instruction and educational services are included in the total; can guidance and kindergarten instruction be measured by the same unit?

Transportation is charged to education but its costs must be measured in terms of conveyances, distances, topography, weather conditions and other factors that affect safe, comfortable and efficient and economical transportation. The maintenance and operation of buildings are an element in school costs but here the measurements must be in terms of area, climate, type of construction, utilization of space and other factors that affect the heating, cleaning and repair and upkeep of buildings and grounds.

Be Careful With Cost Studies

Unit cost studies, at the present time, may lead to serious errors unless carefully executed and interpreted because of the imperfect units of measurement now available and because of the fact that the least important lends itself most readily to measurement. Such studies may lead either to an overemphasis on the relatively unimportant in education or to mechanical "production line" thinking about a process that involves emotion, intellect and all the manifold aspects of human personality.

There are acceptable uses of the rough measures now available but, even in making acceptable use of them, the research worker is under obligation to call attention to their major weaknesses.

Per pupil expenditures have two acceptable uses: (1) to show on the average what is being spent on some kind of education and (2) to serve as a starting point in the analysis of factors contributing to differences found in expenditures. They do not

¹New York State Bureau of Governmental Research.

²Citizens' Public Expenditure Survey, Inc., of New York State.

by themselves provide any justification for reducing or increasing educational expenditures.

Publishing comparative expenditure data on individual school systems without calling attention to specific differences in educational needs, problems and programs (differences in quantity and quality) has been considered unethical within the teaching profession. No state or community can reduce its per pupil expenditure to the level of another state or community without reducing either the amount or quality of education.

The validity of the comparative method in research depends upon the control of variables, reducing the comparison to a single variable. Many of the variables that must be considered and controlled in making

comparative cost studies have been mentioned. However, it may be well to summarize these and to mention some of the other 30 or more variables³ involved in order to show how inadequate are most comparative cost studies, especially those using data gathered by such agencies as the U. S. Office of Education, without recognizing the limitations of these data.

The major variable to be isolated is the quality of the education in terms of the effects or results. To isolate this variable, a number of other variables must be controlled, such as: (1) the separate influence of other educative or miseducative

³See *Some Variables in Comparative Public School Cost Accounting*. Lansing, Mich.: Michigan Education Association, Bulletin No. 12, 1930.

influences in the community of state including the home, the church, the press, the radio, youth organizations and others; (2) the separate influence of heredity, intelligence, health and out-of-school stimuli upon the results obtained, and (3) the separate influence of education of the parents, the education of the children and current education upon the present generation and upon future generations.

Before these variables can be related to cost or expenditures, a number of other variables must be studied, such as differences in income, taxable resources, price levels, expenditures by other units of government, overlapping debt, limits on taxing power, cost of living and other economic factors previously mentioned.

If financial research is so complicated, it may be reasonably asked what can be done to find out whether or not taxpayers are getting the most for their money. An analysis of comparative per pupil expenditures for purposes of promoting economy at the very least should give consideration to five important issues:

1. Are teachers' salaries high enough relative to earnings in other occupations (particularly the professions) to attract the capable into teaching and to hold them after they enter?

2. Is the size of various classes or groups the optimum for the purposes to be attained? Generally speaking, small classes are desirable but, if classes are so small that a school system cannot pay enough to attract and hold capable teachers, they are undesirable.

3. Are unit costs in operation, transportation, buildings, maintenance and general overhead at the lowest point consistent with health, safety, comfort, efficiency and economy?

4. Are interest charges and insurance costs kept down to the minimum?

5. Are legal, governmental and administrative regulations and structure such as to promote efficiency and economy, especially in such matters as class size, purchasing, tax collection, building construction and utilization of plant?

Bored? Try Dissecting a Frog

An Original Composition by a High School Pupil

ONCE upon a time when I went to High School I took up the coarse of Biology. In this course I had to dissect a frog. The frogs back was called its dosile side of the frog. The frogs underneath side was called the Vansile side of the frog. Instead of speaking of a frogs back, and underneath sides we should say the dosile and vansile side. To the reader it might be instering to know some about the frogs adoption. But first of all the color must be mentioned. This frogs vansile side was white so that when it was swimming the water it could be seen by its enemy. The Dosile side of the frog was a dark like grey that is because it could be protected when on land. You see that the frogs Dosile would be so near the color of the grass and ground it would be hard to see. The frog is adapted to the land and water both.

Now I will give you a general idea of the instruments used while dissecting the frog. Some of them was the scalping knife scissiors, teaser, and the tweasers which I just can't recall the right name for them, but anyway they look like tweasers. Oh! yes I almost most forgot the most im-

portant instrument that is the tray to lay the frog in.

The frog was laid on its dosile and was pinned down with pins so that it would not move around. Now for the dissecting you see the frog cut open and inside of the frog you see the organs and other parts which a frog contains. The first thing I removed from the inside of the frog was its stomach, then the small intestine and the others as following large intestine, live, gall bladder, heart lungs and kidneys. The others too. Next we skinned the, and then we took the meat off of the bones to get the general idea of the size and shape of the bones. We found some of them different than we expected at least I did.

Dissecting a frog is interesting after you get used to the imbombing floud. So if you ever run out of anything to do just get you a frog and operate and you'll be surprised to see what you run across. You Will Benefit by it I am sure because you will learn the parts of the frog and really see them in person. You also will benefit because you will learn how to cut the frog to get inside. Try it it is really worth while.

How to Apply for a Teaching Job

H. D. ELDRIDGE

Superintendent, Greeley, Colo.

JUNE LAIN applied for a teaching position and was well received by the superintendent and an examining committee. Subsequently, her hopes of obtaining the position were elevated. She was informed a few days later, however, that Mildred Miller had been elected to the position.

What happened? Did an excellent character, fine training and years of experience count for nothing? The answer to these questions are of supreme importance to hundreds of disappointed applicants.

Miss Lain's failure may have been the result of an unsatisfactory personal interview. Were her credentials up to date? A few hints from one who has employed many teachers may help applicants to avoid a few of the obvious mistakes made by teachers in applying for a position.

Administrative Prejudices

In the first place, applicants must realize that some superintendents have definite prejudices. The important thing for the applicant is to learn what these prejudices are before making application, not after. Take the superintendent, for example, who will not employ a man teacher who is physically larger than himself. This superintendent will not be dominated in size or placed at a physical disadvantage by an employee. Then there is the superintendent who mentally crosses off his list the applicant who makes the fatal mistake of introducing herself by saying, "I am Miss Jones." She should have said, "I am Mary Jones." She must identify herself from the one million Joneses by stating that she is Mary Jones.

An extreme style of headgear will quickly prejudice some superintendents. Have you heard that gentlemen prefer blondes, while men prefer brunettes? The result is the same. In either case the superintendent apparently does not recognize the principle that a faculty,

to be representative of the democracy that it serves, must be representative and democratic.

There are superintendents who demand experience at any cost. Experience cannot be measured by time alone. Many teachers have had only one year's experience in five years of teaching. A teacher under incompetent supervision qualifies as "experienced" and is often rated superior to outstanding college graduates. Many applicants fail to realize the importance of participation in community life. Teacher retirement provisions automatically eliminate applicants more than 40 years of age. An Eastern trained man will sometimes receive little consideration for a position in the West and vice versa. An applicant may not have a chance unless he has been trained by one specific professor in a designated college or university.

If the applicant is an only child his chances for employment in some school systems are not as good as those of an applicant born into a large family. The only child can easily develop into a problem child and ultimately into a problem teacher.

References from certain college professors are not worth a dime a dozen. The applicant will do well to include a few references in her credentials from persons personally known by the superintendent.

A few more hints on what not to do: Do not call on the superintendent unannounced on some Sunday afternoon when he is attempting to catch up on his sleep. It is better to leave him entirely alone on Sunday. There are those well-intentioned but poorly advised individuals who insist upon seeing the superintendent in the middle of an Easter dinner or when he is entertaining guests in his home. In the best circles it is considered unethical to apply for a position that has not been vacated.

The attractive teacher who attempts to "vamp" the superintendent

is usually wasting her time. In the first place, he is probably too tired to be vamped and, in the second place, he would have been vamped long before she came into the picture if he had been that kind. It is safe to assume that there already are a few attractive teachers in the system.

One of the most serious mistakes that an applicant can make is to resort to high pressure methods. The superintendent likes to think that he is selecting his faculty on their individual merits and not running a psychiatric institution, a relief agency or an old maids' home. He may have a hard time proving his case but he does not like to have applicants thrown at him. If the superintendent wants an applicant to contact a member of the board of education he will let it be known. It is a fatal mistake to do this in some school systems without first obtaining permission from the superintendent. In small towns and rural communities it is just as fatal if you do not contact the "right" man on the board.

What Have You to Sell?

And now for the personal interview, the Gethsemane and Waterloo of many an applicant. As an applicant have you ever seriously considered what you can do better than the dozens of teachers with whom you are in competition? What have you to sell on the labor market that definitely excels the best that your competitors can offer? Take a personal inventory. If you have an outstanding quality, make the most of it in your personal interview. You must make a lasting impression upon the interviewer without seeming to do so. An obvious attempt to ingratiate yourself will meet with disfavor but you will never make a mistake by treating the examining committee with deference.

The most effective personal interview is short. If the superintendent or committee is definitely interested in your application a second interview will probably result. Answer all inquiries in a frank, straightforward

ward manner. Do not go into detail unless encouraged to do so. Be sure that your English is above criticism.

While it is easy to caution an applicant not to be nervous, it is only natural for him to feel uneasy at the beginning of the interview. The wise superintendent will make the applicant feel at ease as quickly as possible; after all, the interview should not assume the proportions of an inquisition. Some applicants feel it necessary to assume a "front" in order to impress the superintendent. It does not work that way. Do not hesitate to differ with the interviewer if you hold an honest difference of opinion because he may be testing your knowledge or ability to think independently. It is entirely possible that he is not looking for a "yes" man.

The following are a few of the general qualifications that superin-

tendents look for in applicants: personality, poise, tact, culture, character, humor, health, ability to develop professionally, ability to get along with people, ability to win a place in the community, use of good English, loyalty, industry and initiative. All for \$1200 per year!

In the last analysis, it should be remembered that while there are literally dozens of applicants with training equal to or superior to your own, you may get the job because of your personality appeal, not the superficial, glamorous type but the kind of personality that is the external evidence of real character. It must also be borne in mind that, once he has gained the position, the applicant's loyalty, industry and professional ability should justify his selection. It is just as important to know how to keep a job as it is to know how to get one.

have to be well educated, both in subject matter and in professional education courses. I should want to know something about their personal habits and ambitions. I should want them to be definitely in sympathy with the aims of my modern commercial department. Some experience in business would be necessary and I should expect continued contacts with business in the community. The teachers should be in complete accord with the head of the commercial department as to the aims of the department and as to the means of accomplishing these aims. The work should be set up in businesslike fashion. Teacher tenure is undesirable in such a program because the teacher who fails to keep on his toes and in tune with the dynamic program of the department should be discharged, just as he would be in an office. The good teacher should never have fear of losing his job.

In the commercial department or commercial high school responsibility should definitely be delegated by the principal or the department head. There are, at present, four justifiable divisions of commercial education: (1) selling, (2) clerical, (3) bookkeeping and (4) stenographic, in that order of job opportunity. There should be a leader in charge of each of these curriculums under the head of the department or principal. A leader in commercial education should know the latest and best methods of teaching his subjects and should know also the need for his subjects in the community's business. Each of these four departments should be held responsible for presenting the so-called "consumer" phase of its subjects.

Center the attention then on selecting the commercial teachers and on the man to lead them. Be sure they are the kind that are wanted. Inspire them and make them aware of your complete confidence. Invite and solicit their aid in administration and do not interfere with their work in any way until they have "hung themselves." These teachers will work hard and accomplish much and commercial departments will earn the increasing confidence of business men. This will be their salvation.

If I Were the Boss

LLOYD H. HAYES

Teacher, High School of Commerce, Springfield, Mass.

I ALWAYS have been interested in problems of school administration, especially in commercial education. My short experience in teaching does not prevent my asking, "What would I do in that situation if I were the boss?"

At present I am a teacher of stenography, but I have taught junior business, bookkeeping, office practice and arithmetic in both large and small public high schools.

Good commercial education is the work of good commercial teachers. It is my belief that the administrator should seek teachers who ask themselves often, "What would I do in this situation if I were boss?" and then solicit their answers to the questions. Here, I believe, lies the most efficient, satisfactory method of administering commercial education.

Whatever is wrong with commercial education today has nothing to do with fundamental purposes of commercial education but rather with the teachers who dispense our commercial education. A school is never better than its teachers. This

applies doubly to commercial teachers, because good commercial teachers need to be not only good teachers but amateur business men and women as well. We must prepare boys and girls only for jobs that exist and we must prepare them in a way that will assure their employment if they attain the standards set up for them in school. This means fewer pupils in stenography, more in selling courses. It means fewer type-writing tests based on words per minute and more tests based on the performance of ordinary office typing tasks. Commercial education is not on the way out. It merely needs modernizing.

The school cannot hope to attune its commercial subjects to the business life of the community or to place its graduates in jobs successfully, unless it selects a teaching personnel that agrees entirely with the program and knows how to carry it out.

If I were an administrator I would be extremely careful in selecting my commercial teachers. They would

Taking Roll by Time Card

WEST J. ALTENBURG

Head, Department of Health Education
Tappan Intermediate School, Detroit

UNQUESTIONABLY one of the biggest problems presented by large classes in the health and physical education program is the question of attendance and records.

With the mounting enrollment in the upper grade levels, without additional teaching personnel, it is an increasingly difficult problem. In some cases this has resulted in slovenly records and, in others, in no records at all. Where the effort has been made, ways and means have been found to solve the situation.

Even in an academic classroom an enrollment and attendance system involving more than 20 pupils can be a time-consuming process with little or no educational value. On the other hand, an attendance system may offer an opportunity that is an active and a live educational experience.

It is not unusual to walk into a classroom and hear a teacher with an enrollment of 40 to 50 pupils calling the roll by names. This procedure might be excusable for the first few days of a class meeting when the teacher is using the procedure to learn the name that goes with a particular face. It is absurd, however, to see this method used in the middle of the semester and in a gymnasium with a class enrollment of from 150 to 300 pupils.

Any attendance and record system must meet certain requirements if it is to be of value in a teaching situation.

1. It should be reasonably accurate.
2. It should save time.
3. It should preserve the teacher and pupil relationship conducive to a teacher's awareness of the causes and reasons for absences.
4. It should indicate the progress and accomplishment of the pupil and thus be an instrument of teacher-pupil rapport.

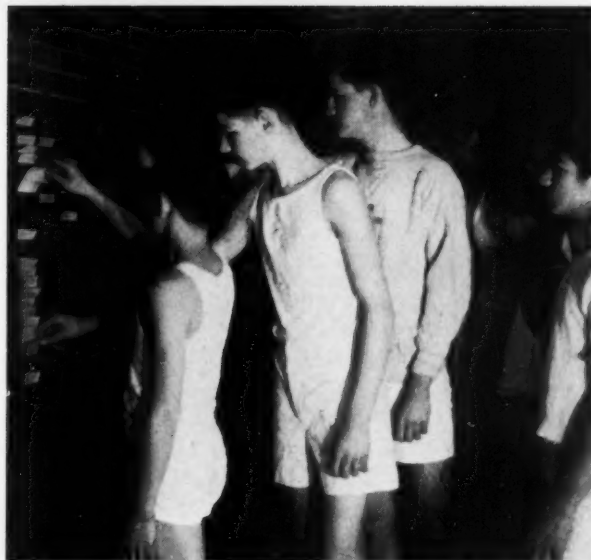
Roll books have one distinct advantage only; they serve as a facility in keeping the entire record of the class and thus facilitate marking.

Fig. 1—These are the envelope holders that show 1100 pupil records at a glance. The envelopes are arranged in the pockets by home-room and in alphabetic order. They are numbered on the attendance cards with numbers to correspond to the pockets in which they go.



Fig. 2—At the beginning of the hour a pupil is either explaining an absence or is being excused from the program. The boy obtaining his envelope from the holder is en route to class where he will turn his envelope over to the instructor.

Fig. 3—The boys who are going to the gymnasium are changing their cards to the blank holder. This leaves a blank space for the succeeding class. Boys taking swimming place their cards in the swimming pool holder before entering showers. At the end of the hour the cards are pulled and returned by a clerk to the class's holder.



This advantage, however, is of little value for when the roll book is lost (teachers are human), the record of the entire class is lost. Further, when the roll book is used directly by squad leaders, inaccuracies occur, resulting from factors such as the following.

1. Squad leaders have seen a classmate in the locker room and assume that he is present.

2. Squad leaders are generally the pupils who are most interested in the program; because of their hurry to get started, they may mark absentees present and vice versa.

3. The squad bullies that are found in large classes threaten squad leaders and frequently get away with skipping class.

Roll books, when used directly, also necessitate a classroom procedure that involves the idleness of the entire class while roll is being taken. Even when this time is utilized for giving the class instruction and direction, it results in class inattention with its resultant confusion.

This system also results in a lack of teacher awareness of the causes and reasons for absence of returning pupils and may lead to participation with unfortunate results for both the pupil and the class. Contagion and infection are constant dangers in large groups of children.

Disadvantages of Check Lists

Squad or team check lists have the same disadvantages as the direct roll book method, together with the added inaccuracies of the transfer of records into the roll book.

There are several methods of taking roll by number. The oldest of these is the assignment of numbers by alphabetical sequence. The class is lined up for roll and each pupil calls his own number. The missing numbers are marked down and later transferred to the roll book by the teacher or clerk.

Numbers are sometimes marked on the gymnasium floor and squad leaders pass down the rows and mark the uncovered numbers absent. This method may be used successfully in high school and college but it is not successful with wiggly adolescents.

There is also the method of number sheets. Multigraphed or printed number sheets are made and numbers assigned either in alphabetical

sequence or by record and homeroom groups in alphabetical sequence.

The last method is time-saving but with the other methods it shares the disadvantages of being entirely impersonal and also necessitates the transfer of records from number sheets to roll books. Thus, with adolescents and early high school pupils, one is always faced with the inevitable, "He doesn't like me; he won't check my number," or "But I did report."

In an individual card system a card is made out for each pupil and these are kept in alphabetical order and numbered. The class is lined up and when a number is missed, this card is pulled and marked absent.

Individual Card System

The class is seated on the floor in squad or homeroom order and the squad leader passes down his row pulling the cards of the absentees.

These methods eliminate the transfer of records but, on the other hand, they are time-consuming and they lack a pupil-teacher relationship that should be one of the most important parts of the health and physical education program. Did the pupil just have a cold? Was he skipping? Was his absence the result of recent pneumonia or scarlet fever and should his heart be checked before he is allowed to return to strenuous activity?

An adaptation of the industrial time card system may be used. At the beginning of each semester an individual record card is made for each pupil. On the back of this card appears the program of the pupil so that he may be located at any time of the day if he should be wanted by the nurse, the school physician or his health teacher. On the front of the card appears a record form for his semester attendance. This card is placed in a celluloid envelope, together with his progressive swimming and activity record. The envelopes are placed in a holder.

Figure 1 shows the seven envelope holders. There are six holders, which contain the envelopes of the six class hours. At the end of the row is a blank holder. Each of these holders is a duplicate of the other and has 300 pockets, numbered from 1 to 300. There are 30 pockets in

each row. The envelopes are arranged in the pockets by homeroom and in alphabetical order. They are numbered on the attendance cards within the envelopes, with numbers to correspond to the pockets in which they belong. The envelopes are transparent celluloid so that the pupil's entire semester record is visible.

As a class comes into the health unit, these envelopes are changed to the corresponding pockets in the blank holder. This leaves a blank holder for the succeeding class. If a pupil is absent, his envelope is pulled by the attendance clerk and returned to the instructor whose class he missed. When the pupil returns, he must obtain his envelope from the instructor and explain his absence.

Figure 2 shows a pupil at the beginning of the hour either explaining an absence or being excused from the program. The boy obtaining his envelope from the holder is going to a safety class, a health instruction class or to the swimming pool, where he will turn his envelope over to his instructor.

Changing Their Cards

Figure 3 shows the boys who are going to the gymnasium changing their cards to the blank holder. There is an arrow in their class holder. The blank holder has a removable star in the same position. At the end of the hour the arrow will be placed above the next hour class and the star, above the blank holder to facilitate locating and differentiating the two holders when half the envelopes may be in each.

The boys taking swimming place their cards in the swimming pool holder before taking showers. While the boys are in the showers, the instructor is interviewing boys who are not going swimming and who had been absent. He then places their envelopes in the holder. At the end of the hour the envelopes are pulled and returned by a clerk to the class holder in the orthopedic room. The pockets in this holder are numbered with the digits 1 to 9 and the symbol O. The boy places his envelope in the pocket in the same relative position that his envelope occupies in the master holder. The digit merely facilitates his finding the pocket.

Your Friend, the Census Taker

WILLIAM LANE AUSTIN

Director, U. S. Bureau of the Census

BECAUSE the Bureau of the Census in the U. S. Department of Commerce is the only organization in the country that can, once every ten years, completely audit America, its efforts toward the collection of information valuable to the pedagogical profession should be carefully studied. The sixteenth decennial census of population, beginning on April 1, will obtain a complete picture not only of the people as a whole but also of most specific occupations, of which teaching is one of the most significant.

It was with full realization of the enormity of the educational problem that the scientists in charge of preparing the population schedules for the forthcoming census inserted some new and unusual queries on extent and quality of the educational equipment of the individual. Perhaps the most significant change in the type of question asked is the elimination of the query on illiteracy. Less than 4½ per cent of the total population 10 years of age and over were illiterate in 1929, according to the 1930 census tabulations, and it is believed that even this percentage has been largely eliminated during the last decade.

In place of the illiteracy data, the 1940 census will present information as to the highest grade of school completed by each person. The importance of this material will be at once obvious to every organization or individual interested in planning for better education in this country. It is true, of course, that a quantitative report on education does not mean a tremendous lot, considering the painful variations in merit among the American schools. Nevertheless, some extremely valuable broad conclusions will be drawn from even these rough quantitative data.

A word of warning, however, must be said concerning the number of people who will be put down with zero schooling to their credit. This will not mean illiteracy. Many



An enumerator for the Bureau of Census interviews a mother of 10 children. The mother usually supplies the census information when the enumerator calls.

self-educated or privately tutored individuals may, if not careful, so record themselves, whereas they should have stated their estimate of the school year equivalent of their training. So if the report on zero years of education in 1940 turns out to be higher than the figure for illiteracy in 1930, it will mean little.

The other question of the population census schedule directly connected with education will reveal how many people, of any age, have attended school during the month previous to the enumeration. Though not as radical a departure from previous schedules as the question on school years, this one will also reveal highly valuable data for the social scientist. Among other things expected from it is an indication of the increase in schooling undertaken by adults as a result of hard times and of the need for particular skills in an increasingly technical, increasingly mechanized civilization.

This question will also have value in implementing any attempts to estimate educational needs for plant

and equipment as well as for personnel. Broken down into small population areas, such as cities of 25,000 population or even smaller, and small geographical areas, such as rural counties, the data will give local boards some idea of the increasing or decreasing need for expansion.

Of paramount importance in studying this problem of the educational plant and personnel is an examination of the trend of the birth rate in America. The birth rate is declining and at a rapid rate. Exactly what the decline is and what changes in age groups are resulting from this change, it is the function of the Bureau of the Census to discover. As is well known, population experts envisage a static population before the end of the century.

A first impulse on knowing this would be to begin planning reduction or at least leveling off on expenditures for school buildings and for teachers. To follow this procedure would be an entirely unwarranted and indeed an unAmer-

ican action: for if the educational system in America does finally have a chance to catch up with itself from the view point of size of class and work-time for teachers, which probably will not happen for decades after the population has ceased to increase, those in charge of it should immediately set about improving, not decreasing educational facilities.

As a first move would come an improvement in the income of the teacher and in the quality of the personnel. On this, Prof. Frank Young's study on teaching efficiency in the October issue of *The Nation's Schools* is extremely apposite.

Replace Obsolete Plants

Next, budgets for new educational plants should increase, if anything, as the average age of the population increases and a greater percentage of the people enter the taxpaying category. Instead of stopping dead in one's tracks, an immediate program of replacement of obsolete and worn out plants and equipment should be instituted.

However, the question of the birth rate is not as yet as important as it will be in another two or three decades if the indicated trend continues. Meanwhile, other general population information will have much value for the educational profession. Trends in population motion from rural areas to cities and towns, especially when compared with similar data from previous censuses, will afford excellent indexes to the comparative immediate educational needs in such areas. A census question that will show how much mobility there is among the people in general by reporting the residence of a family or an individual five years ago will be of at least some interest to the schools where the transient pupil is a problem.

New figures on race and nationality, as well as cogent data on such immigration as still continues, will have their importance in urban areas at least in judging the need for special classes for nonEnglish speaking children and the like.

There are many ways in which the census will be of value specifically concerning teachers themselves. As in the past, separations will be made between college professors and instructors, on the one hand, and school teachers on the other, with a

special classification grouping non-school teachers, such as athletic directors, music, art and dancing teachers and "teachers not elsewhere classified." This year, for the first time, facts are being collected on earnings from wages and salaries and in all probability special cross tabulations for teachers by income will be published, although that is not certain.

The economic status of many members of the teaching profession in America is little short of scandalous and if these census figures on income can assist in showing up the situation as it exists, it will be possible for teacher organizations and societies to publicize the plight of the teacher.

As in previous censuses, attempts are to be made in tabulating the personal data collected to furnish tables of as great practical and social value as possible. The work is not merely a problem of enumeration and subsequent addition of columns. On the contrary, the whole science of statistical analysis is drawn upon to make the published tables valuable to social scientists, business and industry, public welfare agencies of all types and governmental departments.

To Analyze Work Status

In accordance with this policy, the 1940 census returns for teachers will, if present plans go through, be analyzed in a number of ways in addition to the new ones mentioned above. Data will be given for the geographical distribution of teachers; their age, sex and race classification; their place of birth and marital condition, and, for the first time on so large a scale in any census, their work status. This last term involves several subtables, which will present national and state figures on average hours worked per week, number of weeks worked per year and number of totally unemployed or part employed in the teacher group. The value of this material is obvious. Not only will it indicate oversupply of teachers, if any, but, when cross-checked with the average educational status of teachers, it may serve to indicate to what extent formal education and how much of it are needed for typical employability of teachers.

It will be obvious by this time that the 1940 census of population

is not just an interesting thing for the teaching profession to think about. It has great importance as a means of formulating many of the major problems of education. The same thing applies, though in lesser degree, to many of the other censuses that will be taken in 1940. For the activities of the bureau are not limited solely to the decennial census of population; far from it.

In addition to a quantity of weekly, monthly and annual reports and surveys, covering the fields of vital statistics, business and manufactures, and certain classes of state and municipal data, the bureau conducts biennial censuses of manufactures, quinquennial censuses of agriculture and decennial censuses of business mines and quarries and of irrigation and drainage projects.

To Show Textbook Production

Important among the facts gathered by these multifarious activities of the bureau are the figures concerning production of textbooks, always a close indicator of the relative health of the school systems. Textbooks compose well over one third of the total of all books and pamphlets produced in America. The shifts in production of texts as reported by the census of manufactures always are indexes worth following by the educational profession. From 80,000,000 books in 1929 down to 48,000,000 in 1933 and up to nearly 73,000,000 in 1939 is the record of production during the last decade. If the 1939 census of manufactures shows a further increase in such production, there will be reason for optimism about the continuance of improvement of conditions within the profession itself.

This manufactures census, along with that of business and of mines and quarries, started January 2, and the population, housing, agriculture and irrigation and drainage canvasses will start April 1. If the teacher has any special function in helping the census, it is in taking occasion, whenever possible, to describe, interpret and promote it among pupils in classes in which the subject might normally come up. If the children are interested in the census, the parents will become so, and a more complete, accurate and prompt canvass of our country will be the result.



Budget

Playground Surfaces

Interior Painting

Furniture

Wood Floors

Floor Brushes

Maintenance Economies

Boiler Room

Portfolio of

Summer Renovations

Planning a Proper Budget

JOHN W. LEWIS

PROVISION for adequate maintenance is a difficult task, especially in periods of retrenchment. Usually the largest single item in the expense budget, it offers an excellent target when cuts must be made. The operation of cutting a slice from the maintenance budget is less painful immediately than cutting an equivalent amount from the budget of the educational expense items. To cut from the items of books or supplies causes immediate difficulty, while the cutting from the maintenance budget may not be keenly felt for a number of years. On the other hand, robbing the maintenance budget may be like borrowing from a loan shark at excessive interest rates to tide over a present emergency.

The excessive interest will be paid in the form of penalties for neglect.

Replacing exterior sash rotted out through lack of paint is a much more costly operation than keeping the sash regularly painted. When disintegration has not reached the stage of decay, paint may be more costly to apply and less permanent because of the poor surface to which it is applied. Renewal of corroded metal that could have been saved by paint is the worst kind of extravagance. Neglect of exterior pointing resulting in damage to plaster or interior paint is costly in the extreme. The least that can be asked, therefore, of a maintenance budget is an amount sufficient to keep the exteriors of buildings in proper condition.

Neglect of the interior, although less costly, may yet prove to be a poor bargain. To pay for instructional costs in a building so poorly

lighted on dark days that much of the instruction is lost is poor economy. Damage to pupils' eyesight can prove to be too great a price for the savings involved by not installing proper lighting. Neglect of interior painting, while not serious, results in loss of efficiency of both natural and artificial lighting. Inadequate maintenance of floors, especially linoleum or cork, will rapidly build up excessive costs for renewal. A minimum of maintenance, therefore, is set below which it is poor economy to cut.

It is difficult to say with any finality just what percentage of building and grounds valuation constitutes a proper amount for maintenance. This percentage is affected by so many factors, such as the age of buildings, type of construction and labor costs, that no percentage is applicable

Protect the Investment

THERE has been a definite tendency throughout the depression and under still restricted finances to provide for personnel and to neglect program, *matériel* and plant. While it is conceded that the teacher is the most important agent in the educational process, it is difficult to understand how the teaching personnel under current levels of competency can work efficiently under procedures that neglect textbooks and supplies and the essential physical shelter within which the pupils must be gathered.

Reports from different sections of the country that current budgets are neglecting the upkeep and improvement of the school plant are not reassuring. One assistant superintendent in charge of plant recently wrote:

"We have just allocated our budget for the next fiscal year. In that budget, we have again failed to provide adequate funds for maintenance of plant. . . .

"It seems to me that all of us skimp on maintenance when we face adverse financial situations. As a result, we build up a backlog of maintenance needs, which we eventually meet by dry-docking and overhauling a complete structure. Of course, this is an extravagant and senseless way of maintaining school property.

"I have often wished that we might work out some rotating scheme for caring for building repairs. I hope someone will develop a plan to redecorate periodically and to replace mechanical equipment because of reasonable obsolescence in lieu of our present plan of continuing in operation until the building becomes uninhabitable and the equipment finally breaks down completely."

Neglect of the existing structure is truly an extravagance. Attention to small deficiencies as they occur means an ultimate savings of many thousands of dollars for more complete renovation. Short-sighted policies that result in leaking roofs, uncalked windows, dripping plumbing equipment, inefficient lighting fixtures, extravagant use of fuel as the result of worn boilers and hand stoking are not conducive to increased teaching efficiency. Outmoded, worn and dirty textbooks not only affect teaching directly but may also be harmful to the eyes of the children. Cheap and inadequate supplies lower teaching effectiveness.

Constant attention and reasonable budgetary provision for essential plant upkeep are the most economic methods of protecting the school plant.—ARTHUR B. MOEHLMAN.

for Maintenance

Assistant Superintendent in Charge of Business, Baltimore

to all cases. A study of the budgets of many of the larger cities over a period of years seems to indicate, however, that any school system providing less than 0.75 to 1 per cent of the valuation for maintenance purposes should seriously question whether or not maintenance needs are being met. The amount of deferred maintenance that has been done under the W.P.A. program indicates that school systems have been guilty of gross neglect in maintaining their physical plants.

As a guide in planning for a proper maintenance budget the recurring maintenance items should be carefully programmed by a central office control record. The number of years in the cycle between paintings of the exterior of buildings may vary in different communities owing to climatic or other factors but, once this cycle has been established as three, four or five years, the cycle should be followed. The cycle for exterior metal in many communities will be shorter than for exterior wood. The central office record should show the date of exterior painting, together with the cost, for each building in the system. It is comparatively easy from this record to ascertain the anticipated cost of buildings that are due for repainting, as determined by the cycle.

Roof repairs should likewise be carefully watched and money provided for them. When temporary buildings are in use with correspondingly less permanent roofing, a periodic recoating will save many times its cost in the avoidance of extensive replacement. Inspection and touching up of built-up roofs, even during the guarantee period, will be found to be economical insurance.

Careful notes on the condition of heating plants during the heating season will enable the maintenance division to plan and to budget for necessary heating repairs during the summer months. Such planning will save many a headache by avoiding

Maintenance needs of a school system should be planned long in advance and costs prepared long before money may be available.

breakdowns in the middle of a heavy heating season. The cost of such work should be anticipated.

The amount to be spent for floor maintenance should be definitely planned. If floors have been sealed and treated by the so-called "dry method," the amount of steel wooling and resealing or touching up should be established in advance.

The maintenance needs of a school system should be planned ahead on many items. Improvements to program and bell systems, modernization of plumbing, changes in lighting, installation of new systems of fire protection should be considered and planned and costs prepared long before money may be available. Other maintenance items, such as renewal of floors, should be carefully surveyed. Such items can then be coded in order of urgency so that they may be considered not only in setting up the maintenance budget but in the decision of what work shall be done once the maintenance budget has been made available. Having set aside sufficient funds for

emergency and current needs, the balance of the money should be programmed for those items that the survey has shown to be of greatest urgency in point of need and in point of avoidance of later costs of maintenance neglect.

Finally, it should be pointed out that wise budgeting for maintenance and improvement will take into account anticipated changes in school plant owing to shrinkage of population with consequent consolidations and abandonment of the worst buildings. If any building is to be used for other purposes and not to be torn down the exterior should be maintained. Extensive alterations or improvements in such cases should, however, be kept to the minimum.

Just as a wise man will have his dentist survey his dental needs while they are easily met instead of waiting for a sign of pain indicating extensive decay, so will a wise maintenance man survey his needs in advance, budget for them and meet them before they reach the stage of extravagant neglect.



Resurfacing the Playground

WITH the possible exception of turfed areas, spring should be the time for planning and summer, the time for achieving necessary playground resurfacing or repairing. It is never too early to begin to rebuild turf areas, such as football fields, and best results are often gained through fall reseeding. Fall and winter moisture, together with the action of freezing weather on the soil, will help to bury the seed. Whenever the ground becomes warm, growth can get under way without waiting for spring seeding to be done. Earlier sprouting and growth aid the plant in getting into better condition to resist the heat and drought of the summer, thus giving a better playing field when school opens the next fall.

Turf is not the only playground surface that may be in need of re-

pair. Other play surfaces receive wear also. It is just as important to maintain playgrounds and play courts as it is to keep buildings, furniture or instructional equipment in first-class condition as long as playgrounds are an accepted and necessary part of education.

Flooding of low spots from spring rains will show either the need for filling to promote proper natural drainage or the need for underground tile to carry the water away, thus keeping the playgrounds more usable during wet weather. Either filling or installation of tile can best be accomplished during the summer vacation periods.

If playgrounds are hard surfaced, repairs will often require more skill-

ful treatment than those needed for natural earth. It is relatively simple to truck in material or to use a scraper or float to level a playground made from natural earth. It is not so simple, however, to resurface or repair areas covered with concrete or bituminous materials. For these, somewhat more skilled labor and more specialized tools and equipment are required.

In the resurfacing program the question will probably arise as to whether there should be some replacement of natural earth playgrounds. The extent of any more costly program will depend not only upon what other types of usable materials are available but also upon the amount of money for such work.

The type of the play activity also will affect the surface desired. For such court games as tennis, concrete has been found to offer one of the most satisfactory surfaces. For general all-round playground use there is a tendency toward various types of bituminous surfacing.

The National Association of Public School Business Officials, through a research committee headed by John T. Cate, assistant superintendent of schools, Glendale, Calif., has been studying the problem of playground surfacing for the last two years. In a progress report presented at the association meeting held in Cincinnati last October, the accompanying summary was presented.

Resurfacing with any of the combinations listed in the accompanying table under the general headings of sand-clay or crushed stone can be accomplished at a lower unit cost than resurfacing with bituminous materials. Cement concrete is usually the most costly type. Each material has both its favorable and unfavorable features.

Natural earth surfaces are cheap and often little is necessary in the

Types of Public School Playground Surfaces in Use*
(Northeastern Portion of the U. S. Not Included)

SURFACE	PER CENT OF TOTAL AREA REPORTED
Natural Earth	38.82
Turf	17.20
Sand-clay	
Decomposed granite	21.34
Sand and gravel .....	.12
Torpedo sand .....	.78
Clay and sand with pea gravel	1.12
	23.36
Crushed Stone	
Fine gravel	1.02
Rock screenings with cinders .....	.21
Crushed limestone	1.12
Small pea gravel	2.42
Cinders and gravel .....	.29
	5.06
Bituminous	
Rock and asphalt (penetration)	3.42
Cold asphaltic concrete	1.47
Hot asphaltic concrete	6.31
	11.20
Portland Cement Concrete .....	.79
Miscellaneous	
Sawdust .....	.06
Stabilized soils .....	.85
	.91
Antidust Treatments	2.54
Others .....	.12
	100.00

*As reported to the research committee of the National Association of Public School Business Officials.

SUMMER RENOVATION



In congested areas, such as this Chicago playground, all-weather hard surfacing is generally used. A permanent surface requires tiling beforehand.

way of preparation except grading or leveling the surface. Such playgrounds, however, are usually not usable when wet. Washing and gullying are also likely to be frequent handicaps.

Gravel or crushed stone surfacing, though common in some areas, has its disadvantages. Unless some filling or binder is used to cover the coarse bed of stone or gravel and unless the combination is well rolled and packed, the surface is likely to be too loose for active play. Danger from abrasions caused by falling on crushed rock is also somewhat high, as is also wear and tear on clothing.

Dust control and surface binding are common problems on playgrounds having natural earth, crushed stone and sand-clay type surfaces. On such areas, oil or calcium chloride is often used, the latter being a little commoner.

In a recent survey a school authority at Wichita, Kan., reported: "Our tennis courts are natural clay courts and, although we have treated them with calcium chloride, we have not been satisfied with the results, which I think is due to our climate."

Authorities at Sheboygan, Wis., reported the use of calcium chloride on all baseball diamonds. The administrator in another Wisconsin city, Superior, declared: "The way we prepare the playground surface is to disk in a considerable quantity of sand with the clay and then to treat the surface with calcium chloride. We undertake to have the grade as nearly level as possible to prevent washing."

If finances provide for all-weather hard surfacing of the general purpose playground, bituminous materials are probably the most satisfactory, all factors considered. Bitumens, when properly applied, provide surfaces that not only stand up well under intensive wear but also are excellent for specialized play, such as tennis, handball or other court games.

The secret of successful bituminous surfacing lies in selecting the right grade of materials and in the proper application of these materials. Whether a penetrating rock and asphalt surfacing or a cold asphaltic surfacing or a hot asphaltic surfacing is used is probably of far less

importance than setting up careful specifications.

Two asphalts may look alike, yet one may penetrate several times farther than another. One may flow or track during hot weather, thus staining or soiling clothing. Another may break down or deteriorate more rapidly from weathering. Careful study of extreme weather conditions and of types and quality of aggregates to be used is always necessary.

On playgrounds where more or less permanent surfaces are built, some attention must be given to drainage. Surface drainage alone will not be entirely satisfactory on the larger areas. Before resurfacing is begun, the area should be equipped with sufficient tile drains. As the surfacing progresses, proper openings and connections should be installed so as to accommodate maximum waterfall. Such a drainage system will also facilitate the cleaning of the area through flushing down with the use of fire hose.

Throughout the entire resurfacing program the thought must be kept in mind that playgrounds are of value only insofar as they facilitate our entire educational program. Educational funds expended for any other purpose are wasted.

Let's Consider Color

H. H. LINN

Superintendent of Buildings and Grounds
Teachers College, Columbia University

INTERIOR painting in school buildings serves a number of purposes: (1) decoration, (2) illumination, (3) sanitation and (4) preservation.

First, then, let us consider the matter of decoration. School officials often fail to take advantage of their opportunity truly to decorate school interiors when a painting program is initiated because of conservatism in the use of color. Cream or light buff walls with a lighter ceiling color (probably ivory) are so common that they are almost monotonous.

There is no need for standardization of color in the average school. Undoubtedly, a standard scheme of painting is somewhat cheaper in terms of dollars and cents. The mixing of colors is simplified and there is less waste of paint materials. But in painting the cost of labor is the important factor and it takes no more time to apply a green, yellow or blue paint to a wall surface than it does to apply a cream paint. There may be some additional labor in cleaning brushes when a variety of colors is used and a greater reserve of materials for subsequent patching may be required, entailing some additional cost.

The argument that a large quantity of a single color can be purchased more cheaply than the same quantity in a variety of hues does not conform with actual practice. If desired tints are mixed by the painters on the premises, the additional labor item, of course, will increase the total cost. But, taking all things into consideration, the use of a variety of colors for interior decoration in a school building will increase total costs probably not more than 5 to 8 per cent above the cost of a standardized painting program. There is reason to believe that the advantages of a variety of colors in schoolrooms override the argument for economy.

Color has psychological implications. It affects moods, attitudes and emotional responses. Red, yellow,

cream and orange generally are considered as warm colors that tend to cheer and stimulate. Greens and blues are known as cool colors and produce a relaxing or subduing effect. Since the pure hues may attract undue attention to themselves in a schoolroom, the softer pastel tints generally are to be preferred. A variety of well-chosen colors breaks monotony, stimulates interest, adds cheer and creates a pleasant environment.

The location of room areas with regard to exposure ought to be considered. Those facing the north escape direct sunshine. For these rooms a yellow or cream color simulating

interest and to provide cheerful surroundings.

The treatment of woodwork in schoolrooms presents a special problem. Such woodwork includes doors, windows, baseboards, chair rails, blackboard trim, picture molding and, occasionally, a wainscot. Built-in shelving, cupboards and cases also may come into the picture. (For the purposes of this discussion, standard furniture items are excluded.) The woodwork usually is finished in one of two ways: (1) stained and varnished or (2) painted or enameled or lacquered.

Stained and varnished woodwork has a distinct advantage over painted or enameled woodwork in one respect: it does not readily show soil or the effects of physical abuse. This is an important item in a schoolroom where children are careless and cleaning operations are limited. An enamel or lacquer finish is superior to the common paint materials for woodwork, as it resists abuse and withstands cleaning materials better. The finish may be protected by the application of a well-polished coat of paste wax within ten days after the painting job has been completed.

The use of colors that blend with the walls makes the wood trim less conspicuous and creates the illusion of a larger room. To some individuals the total final result is more satisfying as a decorative scheme. Other individuals who prefer a greater variety of color to stimulate the pupils would treat the woodwork with contrasting colors. Thus, a room with cream walls might have doors and windows finished in blue and the picture molding in red. While this variety of colors within a room may prove stimulating, it also may divert attention to a limited extent.

To whom should we turn for advice and counsel in determining the appropriate color schemes for interior decoration in schools? A small

There is no need to standardize color in the average school, for the use of a variety of colors in a re-decorating scheme will not increase costs more than 5 to 8 per cent. Advantages of color override economy

sunshine may be desirable. The cool blues or greens are less desirable. A southern exposure with ample sunlight may find yellow too glaring. Here a cool green or blue may be more fitting. For east and west exposures, selection may be made from a number of colors: cream, green, blue, gray, coral.

In selecting colors, room purposes also should be considered. For example, a music room may be benefited by the use of cheerful yellows and stimulating reds. Greens and blues may be beneficial in a quiet library. The dignified office may use a gray, green, blue or sand shade. A kindergarten room may have a variety of colors designed to stimulate

SUMMER RENOVATION

committee should be helpful in laying out an extensive decorating program. Instructors in the art department may be expected to take a leading part in the discussion. Their opinions with regard to choice of colors, however, should be influenced by the psychological implications, the orientation of rooms, the occupancy of areas and future maintenance problems.

From the standpoint of illumination, the ceiling color is more important than the wall color, since the ceiling reflects more light than the walls. White reflects from 84 to 90 per cent of the light; cream, 70 per cent; ivory, 64 per cent; yellow, 60 per cent; buff, 56 per cent; pale green, 54 per cent; pure deep red, only 14 per cent, and pure green and blue, about 9 per cent.

White is recommended for school-room ceilings. Those who are more interested in esthetics may prefer tints, such as cream or ivory. However, schoolroom ceilings usually are at least 12 feet above the floor level and, therefore, do not come within the normal range of vision. A slight gain in esthetic value cannot make up for the loss of illumination in most school areas.

Mat finish paints reduce glare and are to be preferred to the gloss finish paints, especially in rooms devoted to study or to eye concentration. Gloss or semigloss paints withstand washing somewhat better and may be used to advantage in certain service areas, such as toilet and dressing rooms, where glare is not so objectionable. But even there the semigloss or eggshell luster finishes may prove more satisfactory than the high gloss finishes.

Soiled and dingy ceiling and wall surfaces not only are made more attractive by painting but are made more sanitary. The paint film seals the loose soil particles not previously removed from the surfaces. The freshened surfaces betray the location of new dust particles and encourage a higher standard of routine cleaning, not only on walls and ceilings but over all other areas.

A proper painting program serves to preserve the areas covered. But there are a number of paint materials

Color Combinations Used at Teachers College, Columbia University, for Two Year Period

AREA	WALL	CEILINGS	WOODWORK	EXPOSURE
Office	Gray-green	White	Gray-green	South
Office	Blue-green	White	Blue-green	West
Office	Sand-gray	White	Sand-gray	South
Office	Peach	White	Peach	South
Library	Green	White	Oak stain	South
Library	Cream	White	Oak stain	West
Classroom	Pale yellow	White	Blue	North
Classroom	Ivory	White	Gray doors and windows; blue blackboard trim; coral picture molding	West
Classroom	Flesh	Ivory	Gray-blue	West
Classroom	Outer wall cream; other walls turquoise blue	Ivory	Same as walls	South
Corridor	Salmon	White	Oak stain	
Corridor	Peach	White	All wood same as walls, except doors, which are cardinal red	

on the market with varying degrees of value.

1. Calcimine paints have only a limited place in a school painting program. The material rubs off on clothing; moisture stains it, and it cannot be washed. It may be acceptable as a temporary measure or in some building to be abandoned in the near future or in some secondary area in which the deficiencies are not important. It probably has more merit on a ceiling than on walls.

2. Casein paints, using water as a vehicle, may be judged superior to the calcimine (water) paint. The casein paints are of recent development so far as their commercial use is concerned. While more expensive than calcimines, they are cheaper than good oil paints. The casein material may be applied with a wide

calcimine brush. On rough surfaces, a single coat may give adequate coverage. It may be applied over plaster not yet thoroughly dry. This type of paint does not dust off and soil clothing. Manufacturers claim that the casein paint may be washed after a period of seasoning without removing the material itself. Furthermore, additional coats of either casein or oil paint may be applied in some future redecorating program without removing the material.

3. For general all-round service, standard oil paint materials appear to be superior to either calcimine or casein paints for interior wall decorating. The superiority arises from the quality of paint film, which appears to be tougher and more resistant to washing or other types of physical abuse. The cost of a good oil paint job is admittedly higher.

SUMMER RENOVATION

Plastered walls that have not been painted previously require at least two coats and preferably three coats of oil paint material. The first coat should be a primer or sealer to stop plaster suction and burning. If only a two coat job is applied, the first coat of sealer should be pigmented or mixed with some of the finished

coat material in order to provide better hiding power.

If a wall surface has been painted previously and is in fair condition, a two coat redecorating job may be adequate. The first coat may be a 50-50 mixture of a pigmented sealer with the finish coat material and the second coat, the straight finish.

not only does this make for good looking equipment but the equipment is appraised for insurance purposes at a very small depreciation. As an example, the high school furniture was appraised at 10 per cent depreciation after ten years of use.

Methods of refinishing have been standardized since 1927. Procedure for pupils' seats and desks and similar equipment is as follows:

1. Badly marred desks and seats are hand scraped.
2. Then they are sanded with a belt hand sanding machine.
3. Desks and seats are stained with a water stain.
4. The surface is sealed, a lacquer sealer being sprayed on.
5. A light hand sanding makes the seats ready for final finish.
6. Two or three coats of dull lacquer are sprayed on the furniture.
7. The seats and desks are then dusted and waxed and they are ready for use.

The rooms are set up on a production basis, *i. e.* a room or two is always ready for the next step, scraping, staining or sanding.

As many as 3000 pieces have been completely refinished in a year. All of it is done during school recess periods and most always in the classroom, which saves time and handling. The school system owns its own spraying, sanding and ventilation equipment used in connection with this work.

Approximate Cost of Refinishing Each Desk

Scraping	\$0.10
Sanding .....	.05
Staining .....	.01
Sealer .....	.07
Lacquer .....	.05
Labor, other than scraping and sanding .....	.50
Total per desk	\$0.78

It should be added that the 65 cent item for labor is a part of the regular maintenance pay roll. Actually, material at a cost of 13 cents per unit is the only extra cost.

The accompanying furniture chart has been worked out to trace severe use or unnecessary damage. Where it is justified, a pupil is charged for damage.

New Life for Furniture

WALTER C. HAWKINS

Superintendent of Buildings, Freeport, N. Y.

ABOUT fourteen years ago a procedure was started in the schools of Freeport, N. Y., whereby all furniture would be refinished

completely every five years. In addition to this, a new coat of finish was applied every two and one half to three years. It has been found that

FREEPORT PUBLIC SCHOOLS
FURNITURE CONDITION CHART

School Archer Street School

Room 18

Date February 9, 1940

PUPILS' DESKS

Good	Good	Good	Good	Good
.
.
.
.
.
.
.	1 scratch	.	.	.

Teacher's Desk

FRONT OF ROOM

Teacher D. C. Dings

Left: This furniture chart was worked out to trace severe use or unnecessary damage in each classroom. When a charge appears justifiable a pupil is required to pay.

Care of Wood Floors

L. C. HELM and K. P. GRABARKIEWICZ

Superintendent and Assistant Superintendent of Operation, Respectively
Teachers College, Columbia University

FOUR methods for cleaning and treating wood floors are, or have been, in general use. These are: (1) cleaning with soap and water only, no other treatment being applied; (2) cleaning with materials other than water and treating with mineral oil; (3) cleaning by mechanical methods and treating with penetrating and drying oils, and (4) preparing and sealing with special surface treatment.

Washing school floors with soap and water by ordinary methods has to a large extent been given up because this treatment is costly; it has to be repeated at least twice a month; it involves considerable labor; it blackens and deteriorates the wood; it damages the furniture and baseboards, and, in a few cases, it has been declared insanitary by city health officials.

In addition to the foregoing detrimental factors, the use of water causes the boards to swell, and sometimes results in cracks and loose boards after the floor has dried out. The use of water also partially dissolves the natural oils and resin in the wood.

Use of Nondrying Oils

Various school systems, in an endeavor to avoid the difficulties mentioned, are using floor preservatives that make it possible to eliminate scrubbing. Some are using floor treatment materials that contain nondrying oils. This practice has had a considerable following but is rapidly falling from favor. These nondrying oils keep the dust down but, in general, they blacken the floors, make them sticky and gummy, cause the surface to collect dirt, soil the clothing of teachers and pupils and meet with the disapproval of the city fire department. They do not bind the wood fibers together and give only partial and temporary protection against moisture.

The substitution of dry methods of cleaning for the soap and water

process and the use of treating materials compounded largely from drying oils instead of the mineral oil treatment are great improvements.

One of the developments to be expected as progress is made in floor treatments is the discovery of materials having the desirable properties of both a floor filler and a surface seal. A material with these characteristics would penetrate and preserve the wood, leave little material on the surface, dry hard, be non-slippery and have no odor when dry. It would be waterproof, offer high resistance to wear and permit the restoration of worn areas without showing contrast.

No One Method Superior

Experience has shown that, despite the proved superiority of some methods and products, the fact remains that there is no one material or method of such wide application and such general effectiveness that it is equally serviceable for all wood floors in all public buildings under all conditions.

Seals of the hard surface drying type, such as varnish and lacquer, have been used for years. These finishes, when used in homes, offices or public buildings under similar or special conditions, gave fairly satisfactory results, but when attempted under heavy traffic conditions, they wore through quickly in traffic lanes and made undesirable contrasts in a short period of time. Such hard surface finishes did not permit the repair of traffic spots or lanes without showing overlap and made good refinishing results practically impossible unless the old finish was completely removed.

The phenolic resin type of floor seal generally is highly satisfactory for gymnasium and dance floor use. These seals produce a hard, wear-

resisting surface that is not excessively slippery and does not rubber-burn even under the heat of severe friction.

Another development in wood floor treating materials is the so-called "mopping varnish" type of floor seal. Some of these finishes are especially prepared for the purpose but many others are merely varnishes thinned out with a solvent to a consistency that permits their application with a mop, a sheep's wool pad or similar applicator. The wide variation in the grades and proportions of material that may be used in their composition accounts for the wide range of price.

The better and more effective floor seals, however, are blends of tung and linseed oils, with special gums and solvents, in proportions that ensure reasonable penetration and complete sealing of the wood surface and that leave only a thin wear-resisting film on the surface. A good material of this type, properly applied, will fill and seal a wood floor against stain, dirt and discoloration and will produce a surface sheen that is easily maintained and protected, through the use of floor waxes.

Special Surface Seals

In addition to the foregoing properties, a penetrating seal of this type cannot be considered fully acceptable, when used in combination with a floor machine, unless it is possible to blend it with suitable solvents and use it to clean and restore the floor to its original clean and freshly treated condition.

To make a seal having these characteristics, careful attention must be given to the selection of all the materials used. It need not necessarily be expensive. Some school floors filled and sealed with this type of material and maintained with waxes at regular intervals show slight wear

SUMMER RENOVATION

on the surface finish and require little, if any, touching-up after three years of constant use. Most of the inevitable wear has been taken care of by the wax film.

Perhaps the most outstanding advance in the treatment of floors has been the discovery of mineral compounds which, when added to the seals composed of linseed and tung oils, make their use highly practical in public buildings.

The mineral base materials (dryers) used in conjunction with linseed and tung oil in compounding seals bring about a rapid hardening of the oil. They act as a catalyzing agent, making waits of several days between coats unnecessary. In fact, the combination permits a thorough and complete filling and sealing of the usual wood surfaces with a single application of this type of seal. Thus it is possible to complete the finished polish within from twelve to twenty-four hours. The polishing operation is accomplished through the use of steel wool pads under scrubbing machine brushes or with a special buffing machine.

Foundation for Wax Finish

Surfaces so treated are water-tight and proof against dirt, stain and discoloration. They are remarkably wear-resisting, never slippery, always remain light in color with the natural color and beauty of the wood itself revealed and do not mar or scratch easily. They are quickly and easily repaired without the whole surface being gone over and without heavy surface deposits where the traffic wear is light being built up. Such a surface makes a good foundation for a wax finish, has a fair resistance to rubber-burn and is easily cleaned by a light steel wool buffing.

Classroom floors, after having been treated with penetrating seal, will look well if they are occasionally buffed with steel wool and are properly swept and maintained between the buffing periods. In elementary schools that have two daily sessions and a morning and afternoon recess period, the volume of in-and-out traffic is equivalent to eight times the pupil population of the school.

However, classrooms do not receive as severe abuse as the corridors receive. Corridors and entryways will need to be buffed more frequently, the frequency depending upon wear and weather. Floors subject to frequent wetting should be treated with as much waterproofing material as they will absorb.

To get the best and most economical results, many things should be done to floors, in addition to the original cleaning and polishing.

The daily sweeping process is the most important auxiliary measure. Sealed floors should be swept with an oil treated cotton mop. This mop should be sufficiently dampened with a light oil to make it pick up fine dust. It should not be so heavily treated that it will streak the floor or cause the dirt to cake. Attention to these details will prevent difficulty in cleaning the mop by shaking. A small amount of spirit wax may be used to advantage in this mop-treating oil but a large amount will defeat its purpose.

Mops should be kept clean. The heads can be sent to the laundry, but it is a simple matter to wash them by soaking them overnight in a good commercial cleaner and then by rinsing them thoroughly in hot running water. When dry, the mop heads can be retreated and again put to use.

It is important that dirt be kept out of the building as much as possible. Sidewalks and approaches should be kept clean at all times. On ice that cannot be removed, warm or wet sand should be used. It is not good practice to put salt on sidewalks as it will be tracked into the building and will damage floors and carpets. Salt will also produce unsightly white blotches on the walks.

A wood floor should not be cleaned by mopping or by scrubbing with soap and water if it can be avoided. When a steel wool or scrubbing machine is available, areas receiving heavy traffic and considerable dirt should be rebuffed as frequently as the standards of cleanliness require. These frequent light buffings can often be done without applying additional seal. Spots of dirt in the corners and in other small

areas that cannot be reached by the buffing machine can be removed with a pad of steel wool held in the hand or used under the foot.

No comment on floors and floor treating materials will be complete without some reference to cost. The price depends on the kind and the amounts of the ingredients used.

The cost of a floor seal must depend to a large extent on what it contains. It may easily be adjusted to permit a lower selling price by the reduction of the percentage of tung oil used in the blend, by the introduction of mineral oil substitutes in part for linseed oil, by the use of lower priced gums, by the increase of the proportion of solvents and by the use of lower priced solvents.

Variation in Quality

The ease with which materials in this group of floor finishes can be adjusted and manipulated to affect cost and selling prices is the chief reason for the wide variation in results obtained from their use. This also accounts for the fact that, in some cases, schools rarely need to touch up or refinish their floors after the first treatment with floor seal and, in other cases, worn traffic lanes appear within a few weeks after the application.

Wood floors in public buildings will involve the least amount of expense and labor in their maintenance if they are adequately filled and sealed and maintained with a water-resisting, self-polishing wax. The type of seal depends upon service conditions and the kind of finish desired. Before the final selection of a seal is made, these two items along with the factors of care and maintenance should be given careful consideration.

Every job is separate and distinct, and no exact rules can be laid down that will solve every problem. In the maintenance of any floor, the objectives to be sought are: (1) cleanliness from the standpoint of health; (2) the avoidance of contrast from the standpoint of appearance, and (3) ease of reconditioning from the standpoint of economy of both materials and labor.

Fair Play for Floor Brushes

CHARLES ETHINGTON
Clerk, Board of Education, Enid, Okla.

BEFORE considering the maintenance of a floor brush, we must first of all select a brush that contains good workmanship and good materials. This is the responsibility of the purchasing agent. He should know about the various kinds of hog bristles or imitation bristles that are used in floor brushes. He should put out detailed specifications stating the kind of bristles, size of brush, number of holes in the outside and inside rows and the depth and diameter of the holes. The specifications should also state that the brush be cement set and hand pegged.

In cheaper brushes, such as the staple set brush, the tufts eventually start falling out and the brush has to be discarded. A brush of the latter type proves far more expensive over a period of time than the brush purchased on the specifications mentioned.

Assuming that a 100 per cent hog bristle brush has been purchased based on the specifications and that a 12 inch brush has been issued to the custodian to use, let us now consider the care of this brush. One of the first things the custodian should know is that this brush represents an investment of approximately \$10. Realizing that money saved on supplies may be used to increase his salary, the custodian will take better care of the brush than if he does not know its value.

A custodian must observe the following routines properly to maintain a floor brush: (1) he starts using the new brush on smooth floors; (2) after sweeping, he hangs the brush up instead of setting it on the floor where the bristles bend and become matted; (3) he changes the handle at least once each week from one side of the block to the other, so that the brush will wear evenly; (4) he does not ride the brush, as this, too, causes it to wear unevenly;

Fig. 1 (right) is a brush in which the bristles extend above the main part of the brush, because they have become matted.

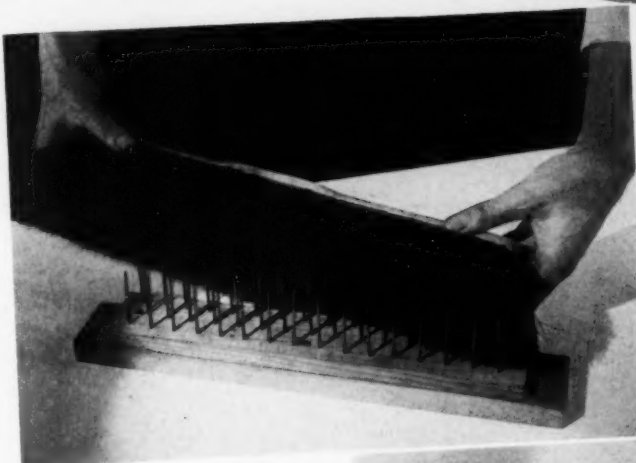


Fig. 2 (above) is a brush comb made of white pine board and sixteenpenny nails. Fig. 3 (right)—A bristle brush must be washed once every two or three weeks.



Fig. 4 (below) is an attachment for holding the handle in place after the threads in the block have become worn.



(5) he combs the brush each week to keep the bristles straight, and (6) he washes it every two or three weeks to remove fine particles of dust that cannot be shaken out. This also cleans and sterilizes the brush.

There is a great difference between a custodian and a janitor and it is easy to tell which a school has by

looking at the condition of his floor brushes. In figure 1 it will be noted that a number of bristles extend from $\frac{1}{2}$ to $1\frac{1}{2}$ inches above the main part of the brush. This condition is due to the fact that the brush was never combed and the bristles became matted. If the janitor started to sweep with this brush he would cut off

all of the longest bristles in the first sweeping.

A comb can be made out of white pine board, 1 by 3 by 16 inches (or shorter), with sixteenpenny nails driven in the bottom and spaced from $\frac{1}{2}$ to $\frac{3}{4}$ inches apart. There should be at least three rows of nails and they should be staggered. This board can be screwed down to the custodian's work bench where it will always be handy.

In combing a brush (see figure 2), always begin by combing a small portion at one end. Continue across the brush until you are able to pull the whole brush through at the same time.

A floor brush is a filthy tool if it is not properly cared for. In order to keep life in a bristle brush it should be washed (figure 3) at least every two or three weeks with soap and lukewarm water and then rinsed thoroughly. This cleans out all the fine particles of dust and dirt that cannot be shaken out of the brush. A brush properly washed and combed will sweep cleaner and last twice as long as one that is never washed and combed.

Thousands of dollars worth of brushes are discarded annually because the threads in the hole of the block have become worn or broken. These may be placed back in service by use of an aluminum attachment (figure 4); it is oval shaped and fits over the block with a bolt running through the block to hold the attachment firmly. This attachment should be reversed on the block each week, so the brush will wear evenly. The attachment, complete with bolt and wing nut, costs only a few cents and lasts indefinitely.

When a brush becomes worn down to where there is only 2 inches of bristles extending out of the block, it may be used on the rougher floors and on the sidewalks. When only about 1 inch of bristle extends out of the block, it can be used for a scrub brush or to apply roofing material. When the brush has worn down to where there is only a $\frac{1}{4}$ inch of bristle extending out of the block, the custodian can then use this block for his slip on dust mop heads.

School Housekeeping Suggestions

Window Cleaning

- Wipe the dust from window glass and wash with warm water containing a small amount of ammonia or vinegar, or with warm water containing a little kerosene and wood alcohol. Wash and rinse windows with a cloth or chamois and dry with a chamois.

Cleaning Window Shades

- Window shades of the better grade can be washed. First, wipe the dust from both sides of shade; then brush



with a light solution of neutral jelly soap. Rinse with clear warm water and dry on curtain stretchers.

Cleaning Door Mats

- Door mats should be kept free from dust and dirt. In the absence of a vacuum cleaner, clean with a coarse broom or by shaking and carefully beating the mats.

Cleaning Blackboards

- Blackboards, especially the pulp or composition types, should be dry cleaned and not washed. They

should be cleaned only with a clean blackboard eraser supplemented by a soft dry cloth or chamois.

Cleaning Erasers

- The best way to clean erasers is by vacuum but, if this equipment is not available, a homemade cleaner can be made. Build a wood frame to set over a shallow pan. Cover the frame with a piece of window guard or heavy sand screen supported by rods or strap iron on edge. Put water in the pan and beat the erasers on the screen. The chalk dust goes into the water where it is held.

Chalk Trays

- Chalk trays should be cleaned daily. Dust trays thoroughly and wash with water or with a cloth dipped in a kerosene solution. Be careful that kerosene does not come in contact with blackboard.

Ink Spots

- Ink spots on floors may be treated with oxalic acid or peroxide. Several applications will remove most of the stain.

Varnish Remover

- Make a half gallon of thick starch. Immediately dissolve two cups of soda in the starch while it is still hot. The starch is used merely to hold the soda in place. Put this solution on the surface from which the varnish is to be removed and let it stand overnight. The varnish may be scraped loose with a putty knife the next morning.*

*From "School Housekeeping," issued by the Interstate School Building Service, Nashville, Tenn.

Economies in Maintenance

DAN R. KOVAR

Principal, Benjamin Franklin Junior High School, Uniontown, Pa.

DURING recent years when maintenance appropriations were slim, many schools were faced with the problem of upkeep on reduced budgets. Some of the economies practiced at Benjamin Franklin Junior High School, Uniontown, Pa., during this period will continue, even though the time should come when the budget is again restored to normal.

The building is a two story school with two ells. The auditorium-gymnasium is between the ells. There are two staircases at each end of the building. When the school was erected, the staircases were painted a dark olive green, making them dark and gloomy.

Recently, with a W.P.A. grant, the school was repainted and the backs of the stairs were painted the same light green color that was applied to the walls. It made a vast difference in the appearance and also in the lighting of the stairwells. Now it is necessary to use electric lights only on dark days.

The dark north side of the building houses the art room, writing room and domestic arts room, all three of which need ample light. When the school was being repainted the color scheme provided for a cream ceiling, walls of light green and a dark green dado. A coat of varnish was applied over the dado to facilitate washing. Accidentally, in one of the cupboards, the painter varnished a portion of the light green wall. The application of the varnish caused the light green to take on a slightly darker hue, which was still lighter than the dado. So the walls in the darker rooms were painted a solid light green and were varnished from the dado to the baseboard. Consequently, these rooms are much lighter, the pupils are able to work with less

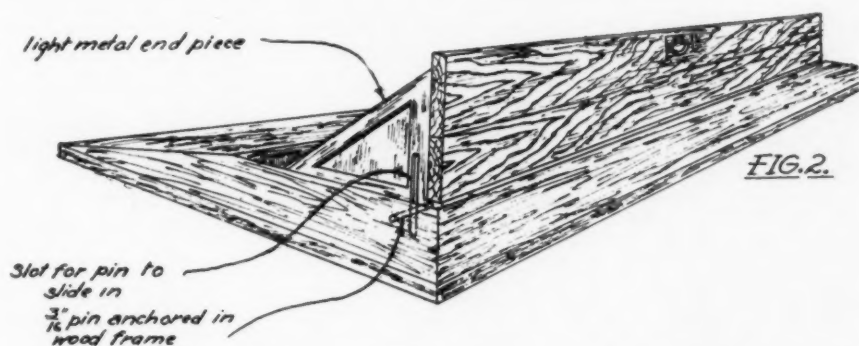
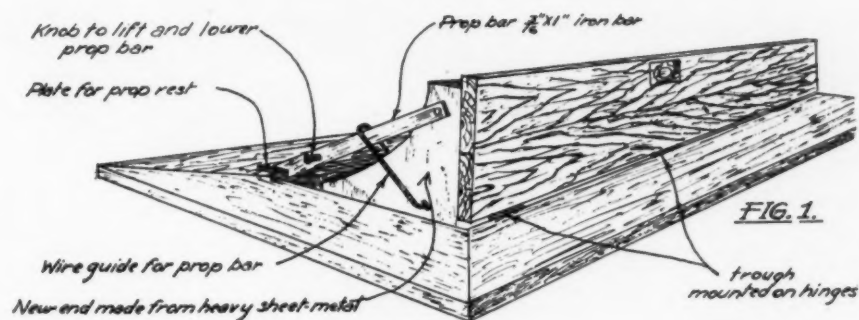


Figure 1 is a perspective end view of a footlight trough showing the new mechanical method adopted to hold the trough in an upright position. Figure 2 shows the former method used. It was not satisfactory because it was not suspended on hinges. Instead, the entire weight was suspended on a pin at either end that worked in a slot cut in the light metal. The pin eventually tore the slot and the troughs became hard to operate.

eyestrain and there is less need for artificial light.

Baked enamel table tops in the domestic science room were badly worn and chipped. Authorities advised that the best remedy was to purchase new table tops, because the surfaces were so badly damaged that they could not be renamed. The cost was prohibitive, however. All cracks were filled with plastic wood and the surfaces were sanded with a power sander, after which two coats of ground and three coats of white enamel were applied. As each coat of enamel dried, it was rubbed down. This is the second year for the resurfaced table tops and they are wearing as well as the originals.

In some places the plaster coating fell off the walls and ceiling. This left unsightly patches of rough coating and marred the appearance of the halls and rooms. The janitors

tapered off the edges of the plaster, using a curved bastard file, smoothed the rough coat and then applied sizing and two coats of paint. Fortunately, a standard mixed paint had been purchased so that there was no difficulty in matching up the shade. The appearance, while not deceptive upon close inspection, makes the halls more attractive.

For assembly purposes about 300 steel chairs are put in the auditorium-gymnasium. These chairs are handled by the chair squad of junior high school boys, who sometimes forget that even steel can be damaged. As a result rungs have been broken and hinges, bent or cracked. To replace broken chairs was expensive. A local welder was called in and asked to bid on the repairing. After examining the chairs, he offered to repair them for one fifth of their original cost. The welded

SUMMER RENOVATION

chairs have been used for four years and are still in good shape.

The footlight troughs were handled by a "stage guild." No matter how careful the boys were, there was always the chance that someone who did not know how to open them would attempt to use them. The frames are of oak and the troughs are of light sheet metal. They were opened and closed by pins sliding in slots cut into the ends of the metal troughs. The pins were heavy gauge nails and they contributed their share to destroying the efficiency of operation. Although the troughs cost \$60 a section, by the end of the sixth year they were hard to operate, having buckled at the ends. Finally, they were declared too dangerous to use because of the fear that there might be a short circuit.

Other things seemed more necessary than footlights and the dramatics teacher despaired of getting new ones. But the welder who fixed

the chairs chanced to see them and suggested that he be allowed to repair them. By welding heavy gauge plates into the ends of each trough, he ensured that they would not buckle. He devised a catch made of strap steel to keep the troughs open and made each trough swing on three hinges. The footlights now work satisfactorily and more than \$300 was saved.

While the building was being repainted, one of the health education teachers pointed out that there was no water fountain in the gymnasium-auditorium, despite the fact that this was one department in the building in which youngsters were always thirsty. This problem in the gymnasium was solved by placing a fountain in the rear of the auditorium, where it is easily accessible, but inconspicuous.

Several years ago one of the boys, in a hurry to leave school, missed the panic bolt on one of the doors

and ran his arm through a pane of glass. As a result, all the glass in exit doors was replaced with safety glass. At the time, the chief concern was to cut down the hazard to the pupil population. In the last three years, another value has been found in using safety glass. The athletic field is at the back of the school and two sets of doors, each with eight panes of glass in them, open upon it. These panes have always been targets for mischievous boys, who throw stones at them. It was a common occurrence to replace several panes weekly when the weather was nice. Since safety glass was installed four years ago, two panes have been replaced. The boys still throw stones and several panes are cracked but they present no hazard. "Seconds," safety glass with slight imperfections, are just as durable as flawless glass.

Lines on the basketball form were always worn out before midseason because the floor was constantly in use six days of the week. It was difficult to get new lines painted on the floor once the basketball season was under way because Sunday was the only day when the floor was not in use and the enamel used required thirty-six hours to dry without smearing. Then, too, it takes a certain amount of skill to be able to paint straight lines. Confronted with the problem, this year the lines were varnished after they had dried and now we apply a coat of varnish each month. The varnish dries over night, the black lines have shown no signs of wear and the gymnasium program goes on unhampered.

Window shades are frequently adjusted by pupils but, no matter how careful they may be, a hem begins to ravel and when some luckless youngster yanks too hard, out comes the entire hem and the shade is torn. Now at the first sign of raveling the shade is sent to a local department store which rehems the shade or turns it at a cost of 15 cents.

Other economies are practical, too. Through regular inspection, books are kept free of papers and pencils. Weekly inspection of desks keeps them in order and gives an inventory of the desk, so that no pupil stores up three or four tablets.

Vacation Care of Equipment

IN PREPARING summer schedules, provision must be made for the care of school equipment. The question of what to do about the shops was raised the other day and we asked J. C. Gibson, business manager, Fort Smith public schools, Fort Smith, Ark., to describe how this is handled in his school system.

First of all, an inventory of equipment and supplies is taken. Then all shops are carefully cleaned and all waste, such as oil rags, is removed to eliminate fire hazards.

Now Mr. Gibson becomes specific, showing the variation in procedure in these departments.

Here is what happens in the print shop: (1) check the linotype, clean and make all the necessary repairs; (2) drain the metal pots; (3) clean and grease all the machinery parts that are subject to rust; (4) grease the galleys, sticks and chases; (5) lock all the small tools and parts in cabinets.

In the drafting room: (1) clean and oil all the instruments; (2) re-

pair unserviceable instruments; (3) spray all triangles, scales and T-squares with a coat of clean lacquer; (4) store the instruments in locked cabinets; (5) varnish the tops of drawing desks.

In the woodworking shop and auto mechanics shop: (1) clean, grease and repair all machines and hand tools; (2) lock all the small tools in the storage cabinet.

In the commercial department: (1) clean carefully all the typewriters and other commercial machines and go over with an oiled rag all exposed metal parts; (2) cover all the machines and keep them in a locked room.

For good measure Mr. Gibson adds something about band equipment. "All our band instruments are carefully cleaned, the slides greased and the valves oiled. They are then locked in a band storage room provided for the purpose. All band uniforms are dry cleaned and placed in a uniform storage room, which is kept mothproofed."

Cleaning Up the Boiler Room

CLARENCE E. STEVENS

Business Assistant, Board of Education
South Orange and Maplewood, N. J.

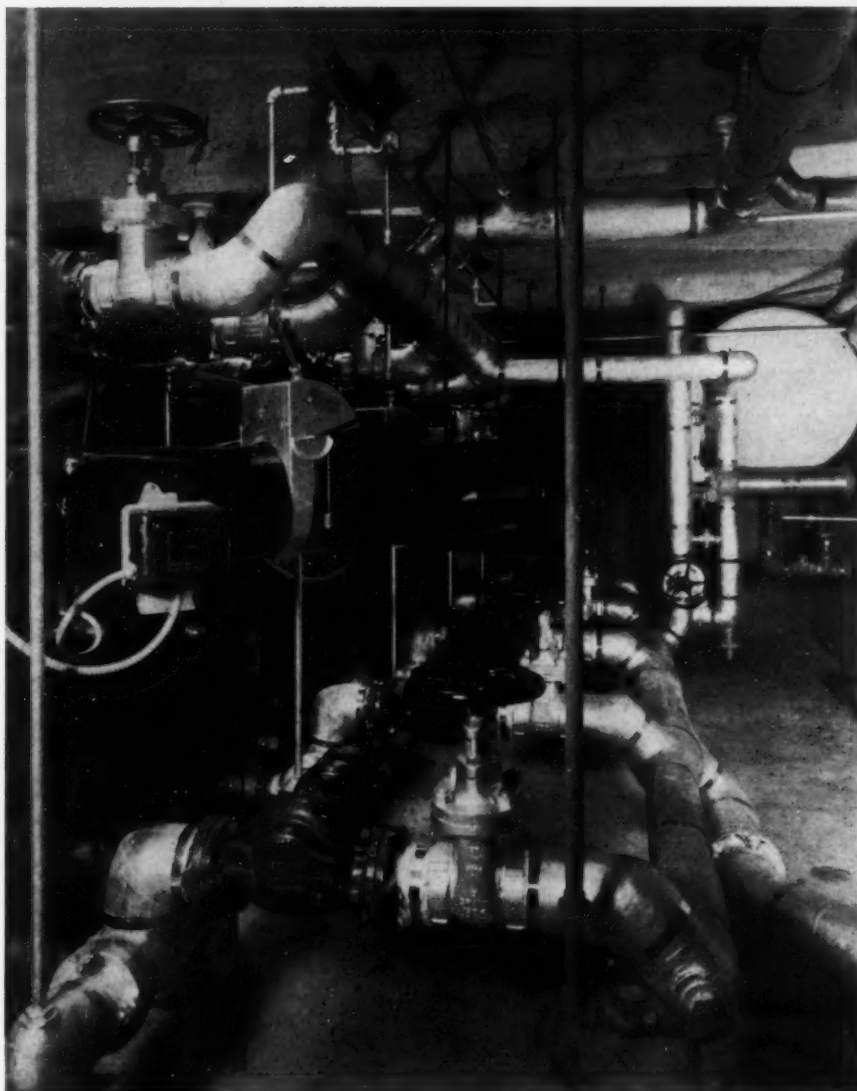
THE summer schedule of work in the boiler room is a heavy one in most schools. At South Orange and Maplewood, N. J., it is suggested to the janitors that they anticipate this work by doing as much as possible in advance of the actual summer period.

Generally a hot water heater of some description is used for the summer supply. During the winter the water is heated by the steam coil from the main boilers. Since the hot water heater is not used during the winter, the janitor takes this opportunity to clean it out. The firebox, grate area and ash pit are thoroughly cleaned and then the water jacket is flushed out.

Usually the school has more than one boiler used for heating. In these buildings the janitor generally lets one or more boilers go out before the close of the heating season. As these boilers are put out of service the work of cleaning them is begun.

Another job frequently done in advance of the actual summer vacation period is the coal bin clean-out. The actual time when this job can be accomplished is dependent on the delivery of new coal to the bins. We feel that it is desirable to have the remaining old coal transferred to a spot where it will be used first and not be allowed to remain unused for a period of years. It is not that we believe that the actual quality of the coal deteriorates, but the coal remaining on the bottom of the pile accumulates the dirt from the coal above and its heating value is correspondingly reduced.

We prefer to start the regular summer work with cleaning the boilers. The tubes are cleaned out with brushes or scrapers when necessary. Soot chambers are cleaned, including the breeching, smoke pipe and base of the chimney. Frequent cleaning of the tubes and soot cham-



Usually one or more boilers are put out of service before the close of the heating season. As they are put out the work of cleaning them is begun.

bers during the firing season should make this merely a routine job. The presence of the soot in the tubes acts as an insulating layer to prevent heat from the gases from passing through the tubes to the water.

The boiler firebox gets attention next. A thorough brushing is given the firebox section, including grates and ash pit. The brick arch is inspected and repaired. While this cleaning is in progress, a careful inspection is made of all parts.

Attention is given first to tubes, soot chambers and firebox because

of the dirt that is removed from these places. This dirt, while a nuisance to handle when dry, is almost impossible to handle when wet. We get rid of it, therefore, before proceeding with any other jobs. During the cleaning process this dust has been deposited all over the room. A dry cleaning of the walls is next in order, followed by a brushing of the floor. We then wash down the entire room to get rid of the dirt.

The handhole and manhole plates are next removed and the inside of the boiler is hosed out with water

under pressure. A careful inspection is made to note scale formation or any weak spots in the tubes. The final clean-out through the lower handholes assures a clean boiler.

Attention is then given to steam and return valves. The equalizing valves are also examined. This involves removing the bonnets and inspecting the machined surfaces for signs of wear that indicate a need for replacement. Check valves also are dismantled and given a thorough examination. The pipe lines connecting these valves are checked carefully. The blowdown valves and safety valves are looked over. The blowdown valves should, of course,

have been used for regular blow-downs at least once a month during the heating season. Safety valves should have been checked for operation under pressure during the firing season.

The water column should have had repeated checkings during the regular season to ensure the fact that it was functioning properly. During the summer renovation the gauge glass should be removed and cleaned. New gauge glass washers should be inserted in replacing the gauge glass after cleaning.

After cleaning steel boilers the water is left out, as are also the handhole and manhole plates. We have

found this practice best although some recommend that the boilers be filled again immediately after cleaning. We follow the latter procedure with cast-iron boilers, filling them to the top of the cast-iron sections. In restoring the steel boilers to service, new gaskets, properly graphited, are placed on the handhole and manhole plates. The plates are then inserted in their proper places.

Vacuum pumps and/or boiler feed pumps are dismantled, cleaned, inspected and repaired when necessary and reassembled. Electric motors also are cleaned, carefully checked for any needed repairs and put in readiness for fall service.

Boiler blowers are examined for defects and are thoroughly cleaned. Electric motors driving these blowers are given the checkup indicated previously.

The stoker in use in one school has to be completely torn down in order to clean and inspect it properly. Experience has shown that this equipment must be kept in good shape if it is to function successfully during the heating season. A careful checkup is given the gears, worm, fan and motor. It is frequently necessary to renew parts of the coal hopper because of the corrosion resulting from the bituminous coal. The tuyères also come in for their share of the inspection.

The oil burner in one of the administration buildings receives its quota of attention also. The burner is taken apart, carefully cleaned and examined. Electric contacts are touched up. The switch is inspected to be sure that it is functioning properly. The pipe line between the tank and the burner is checked to see that the oil flows freely.

Briefly, we anticipate our summer schedule whenever possible in order to reduce the heavy program during July and August. The regular program is arranged so that insofar as possible there is no repetition of cleaning tasks. Dusty and dirty jobs are disposed of first and, in general, we start at the top of the room and work down. We are careful to see that no item is omitted for cleaning and inspection in order to prevent accidents and delays in operating the heating system.

Scrub-Up Time for Walls

TROY D. WALKER

Field Director, Oregon State Teachers Association

THE real secret of success in washing painted walls and ceilings lies in the cleaning method used and the competency of the workmen. The person in charge should feel his way as to the amount of cleaning agent that should be added to the cleaning water. He should take a sponge and a pail filled three fourths full of water just warm enough to be comfortable to the hand. The cleaning agent should not foam or lather; many agents will foam or lather if water warmer than 65° F. is used.

The sponge should then be submerged in the clear water and squeezed until it will not drip. A few small areas of the wall, 12 inches or so in diameter, should be selected and cleaned. If the clear water does not remove the stain or grime, additional cleanser should be added until it is just strong enough to lift the dirt and grime with a small amount of work. This testing process should be repeated in every room and on every surface to be cleaned before proceeding to clean it, as a mixture strong enough to remove dirt and grime from one surface may be so strong that it will totally destroy another surface; or a weak mixture that will remove the soil from the surface in one room may not be strong

enough to have any effect upon the soiled surface in another room.

The grade of paint used originally on the walls and ceilings assumes an important part in the cleaning process. If a thin paint was used, leaving the plaster dirty and porous, great care must be taken to prevent the dirt that is cut loose by the cleaning process from being sucked up into the pores of the plaster, as dry plaster has a great affinity for water. If this occurs, it is almost impossible to remove the dirt a second time. To reduce this absorbent action to a minimum, use as little water as possible. Walls and ceilings that have been painted with a sufficient number of coats of a good paint can be washed many times.

Areas about 24 inches square should be washed and rinsed, although the size may vary with the degree of humidity; the areas should be small enough to prevent the washed surfaces from drying before they are rinsed. The rinsing sponge should be squeezed as dry as possible and the surface wiped thoroughly. Sufficient area should be overlapped each time to ensure freedom from streaks.

Fiber board ceilings and walls may be successfully cleaned with a rubber bath sponge.

Quack Vocational Schools

DAVID L. FISKE

Secretary, American Society
of Refrigerating Engineers

CORRESPONDENCE schools and private trade institutes, unregulated in most states, find it easy to sell youth the hope of a job with special training supplied by them. Cloaked in the utmost respectability, with every accoutrement of responsible education, various quack vocational schools, by mail or by night, pose as research agencies and allies of industry. Associated with the "pioneering industries," the "newer fields," so they say over the radio daily, they can give an education that really matters.*

When their salesmen call, the "industry" turns out in most cases to be air conditioning. That is the field for all promising young men now but at another time it might be Diesel engines, neon light, television or aviation. "Thousands of men could be placed right now, if employers could get them! No special schooling required. Six months' work at most."

By this story suckers, old and young, are hooked in tremendous numbers. It may be readily disproved by any attention to the facts of the employment in these fields. Yet one must recall what happens when notice was published recently of five or ten minor jobs in a street cleaning department: Men stood in line for days, by the hundreds.

It is not surprising that they believe the story. But suppose one approaches a teacher, asking advice; or an employment agent; a manufacturer in the trade in question; a trade publisher, or consults a book of vocational advice?

Let us hope, first that the teacher will see some flaw in the yarn, even if he shares the belief that these industries have fabulous futures. As for the others, they will not often

*EDITOR'S NOTE: This exposure of quack vocational schools should not lead the casual reader to the conclusion that all correspondence schools fall into the same category. The types of instruction mentioned here represent the exploitive fringe.

or greatly dispute the impression gained by the high-pressure salesman who calls himself a "regional educational adviser." This makes it easier for him. So we find more advertising being done for air conditioning schools than for air conditioning and more men employed selling courses in Diesel engines than in making these engines.

Teachers know the impatience of the untutored with the general and fundamental and the ease with which one may be misled into greener pastures. Yet several of them have set their names to books advising the young with words taken almost from the salesman's mouth. Vocational and

An exposé of correspondence schools and trade institutes that exploit youths by the thousands with promises of employment in industry after enrolling

educational agencies of high purpose, hearing so much about air conditioning schools, think there must be something in all this and say so in various helpful ways.

The Federal Trade Commission is attempting to control the sales methods of schools doing a national correspondence business; it enters flat denials of all their claims about jobs in air conditioning. But there are scores of more or less local outfits, using newspaper and radio advertising. Air conditioning is the bait but the names of the schools vary and change often. Schools of drafting and technical institutes must keep their wares up to date.

Many of the students go merrily through to the end. Only a few try the job market earlier. After they do, things look different indeed. Once in a blue moon one of this

hoard will get a job but it is yet to be proved that a diploma did it. A school that must have had at least 20,000 students proved its innocence, to the satisfaction of a broadcaster, by submitting a list of 60 or 70 presumably satisfied alumni. Records from the inside of another school that was reported to me showed that from 2 to 3 per cent of those who completed the course were later identified with the industry.

Because of their considerable advertising in normal human intercourse, all these newer, or pioneering, industries are much overcrowded and, besides, they are greatly sought out by capable applicants, college trained and the like. The quack schools have multiplied the total number of applicants beyond all reason but they have not affected the employment situation for their graduates are in the main wholly unequipped for employment requiring training if employment were to be had.

From interviews with scores of the patrons of these way-to-get-a-job schools, I would say that the evil is founded on some fundamental American prejudices.

We like to think that hard work will overcome great differences of situation, native ability and education. We expect great things of education and training and the distinctions between them and what merely looks like them are not seriously regarded in a pinch.

Above all is the failure to discriminate between knowledge that becomes of the nature of skill and knowledge that arises just from having heard about something. Most everyone, regardless of class or opportunity, has some of the former. It is out of that skill, inclination or experience that one may make something of himself, not out of whatever books and subjects he has dipped into. None of the people who patronize the quack schools knows this. I hope as a layman I do not offend teachers in mentioning a matter so elementary!

Pupil Commencement Speakers

THE high school commencement program is an excellent way to acquaint a not too well informed public with some of the main objectives of its tax-supported schools.

With the school's finished product on display, this culmination of activities is the biggest show of the year. All too often, however, a large percentage of the community is interested only in the extracurricular phase of the school, such as sports and social events, and it is to the mutual advantage of both school and community that the most be made of the occasion. Perhaps, many of the pupils within the school need to be reminded of the real motives of the school, and, as many of these pupils will attend the exercises, they also can benefit.

How can the most be made of the occasion? Let us first take the plan that was followed in the past. The traditional plan, borrowed from the colleges, always included a speaker of note. In many cases the discourse was only indirectly related to the school; the speaker certainly was under no obligation to say anything about the school. Often the speech was so high-sounding and literary that the audience comprehended little.

Because the speaker's services were usually paid for, the senior class often had to tax its members or resort to

some other device to collect the necessary money. A good speaker was nearly always hard to procure, too; that is, one that would come at a reasonable price.

There were, however, certain advantages in the traditional speaker type of program. The trained speaker required no coaching and he never suffered from nervous shock to such a degree that he forgot the whole oration, such as pupils often do. Thus the speaker part of the program was comparatively simple from the standpoint of the school administration.

To meet the objections to the traditional type of program, the idea, not a new one, of having pupils do the speaking, was revived at Morton Senior High School, Richmond, Ind. We felt that pupil speakers could do a better job in telling about the school because they knew about it.

The faculty was not arbitrary in making the change and consulted the senior commencement committee before the move was decided upon. The committee was easily won over to the idea and plans were made for the selection of the speakers. In a senior class of more than 300 it was not hard to find good potential speakers.

The news soon got around that pupil speakers were to be used and several pupils actually asked to be considered. The school newspaper and the city newspaper carried stories about the change in commencement procedure and there was some curiosity as to just who would be selected for the limelight on com-

mencement night. It also was made clear in the news stories that pupil speakers would talk about the school. The principal designated the English department to do the job of speaker selection and each English teacher was asked to nominate every senior who might be equal to the task. There were many duplications and only about 12 persons appeared on the final list of nominees. These pupils were called in by the faculty chairman of the commencement committee and were told they had been chosen for the tryout.

The tryout consisted of the reading of various prose selections which were handed to each contestant as he entered the room. Scholastic records and ability to write also were considered in the selection. Three English teachers, acting as judges, selected from the group two girls and two boys. One boy and one girl were named alternates.

The selection of a suitable topic was next. During the last two years we have chosen a general topic, with each speech contributing directly to the main idea. In 1937 the general topic was "Emphasis on Leadership" and the titles of the addresses were: "Organization of the Senior Class," "Extracurricular Activities," "Honors and Awards—What Do They Mean?" and "Description of Honors and Awards."

The general topic in 1938 was "Serving the Needs of the Community." The speeches, which explained how the school served the needs of the community, were entitled: "The Academic Curriculum," "The Vocational Curriculum," "The Commercial Curriculum" and "The General Curriculum." The idea of the speeches in every case is that of telling the public about the school. Preliminary to the writing of the



Interpret the School

GLENN HOLDER

English Teacher, Morton Senior
High School, Richmond, Ind.

speeches, the speakers met with the commencement committee and evolved a tentative outline for each speech. The senior class sponsor and the faculty member of the committee also made suggestions for the outlines. Armed with the outline and a good idea of what was expected of them, the speakers were then ready to compose their speeches.

This preliminary work is important if an effective speech program is to be assured. A large number of pupil speeches are weak because the pupil has no definite idea of just what is expected of him. Hence, he often exhorts rather than narrates and explains.

Various sources, such as the library, teachers, the administration and local persons, were used by the pupils in constructing the speeches. These were finished by the pupils at least a month before the end of school. This gave time for changes and for the preparation of the delivery. The speeches then were read by the faculty commencement sponsor, the senior class sponsor and the principal. Censorship so far has not been necessary but a few changes in form and content have been made. Since the average member of the commencement audience is not acquainted with specialized school nomenclature, it was necessary in a few cases to simplify the language that the pupil had used.

About two weeks before commencement the speeches were in final form and the pupils were ready for practice in delivery. It is advisable to have the pupils memorize the speeches. Most of the speakers need from six to ten rehearsals before the public speaking teacher. The commencement committee was invited to visit one or two of the rehearsals. The last rehearsal was given on the commencement platform on the morning before the exercises. Type-written copies of the speeches were placed on the speaker's stand. In most cases the manuscripts were not needed but their presence was comforting to the orators who for the

first time faced an audience of 3000 persons.

In 1938 the speeches by pupils were especially successful. Speaker A, discussing the academic curriculum, explained in part that "when we speak of the academic curriculum, or of an academic education, we mean a liberal general education as opposed to a definite course that will prepare a pupil in one certain field. The academic curriculum in this school is not a course in which a person can get only a scholarly theoretical education. This is an age when general practical knowledge is required and our academic course is one designed for pupils who want a broad general knowledge of the many everyday problems facing them. Above all, the course strives to be liberal and to encourage original ideas and logical reasoning that will stand the pupil to good advantage in whatever he will do after he is graduated."

Speaker B, using as his subject the general courses, said in introduction: "The general courses are offered to the pupil who does not intend to go to college but who does intend to finish high school, without fitting himself for any particular occupation. The aim of the course is to provide the pupil with broad general information and so prepare him to become a worthy citizen at home and in the community."

Vocational Courses Lauded

"Stress is placed upon making the courses practical. There is no special emphasis given one subject but a variety of subjects is given in an attempt to acquaint the pupil with the problems, however diverse they may be, that will confront him after his formal education has been completed. If after graduation he does not know the solutions to these various problems, at least he knows how to go about evolving an answer."

The vocational courses were discussed by Speaker C. He said that "our school offers a choice of four courses to the individual who is taking up vocational work. The voca-

tional machine shop provides an excellent background for any future occupation that necessitates an intensive knowledge of tools and experience in using them. The drafting department aids the boy who is to become a draftsman and is important in preparing for architecture, engineering and contracting as well as being of immense help in shop work of all kinds. The vocational printing curriculum provides an adequate foundation for boys who have chosen printing as a life vocation. The woodworking course offers the necessary mathematics and information about material used in the trade of pattern-making, cabinet-making and carpentry. Upon completion of this course, the pupil should understand the art of blueprint reading and of molding, coremaking, metal analysis, furniture making and fine cabinet work."

Commercial Courses Explained

Speaker D concluded the series with an explanation of the commercial courses. "The commercial curriculum in our school," she said, "serves the needs of the community by giving specialized training in stenography and bookkeeping and by giving general business training in the bookkeeping and clerical-selling courses. The commercial subjects are of definite practical value and specific and immediate benefits may be derived from this course in the way of wages."

Each speech lasted between eight and ten minutes, making the speaking part of the program cover about thirty-five minutes. The entire commencement program consisted of the following parts: processional, invocation, musical number, speeches by pupils, musical number, presentation of diplomas, announcement of honors, benediction and recessional.

As a further means of dissemination, the local radio station broadcast the entire program, thus making it available to large numbers, many of whom would have attended had they been able to procure tickets.

Quality at Low Cost

THE Monroe School, School District No. 9, Nankin Township, Wayne, Mich., was built with the aid of a P.W.A. grant of \$35,038, the school district supplying \$42,825. The building was completed and ready for use at the opening of school in September 1939.

Certain features of the building were determined by the Michigan school law and by modern educational practice. A new school law demands fire-resisting buildings and forbids placing the heating plant underneath the building. Present day school planning requires more space per room than formerly. This does not necessarily mean a larger pupil load per teacher but a change in technic, with a tendency to instruction by interest groups, such as manual training, sewing, cooking and art. These methods are being used in the lower grades as well as in the junior and senior high schools. With this in mind the rooms in this building are 32 feet 6 inches instead of 30 feet. All the seats are movable.

All rooms and corridors have materials of acoustical qualities in a price range of the taxpaying public. Classrooms have painted cinder block walls, ceilings insulated for sound and asphalt tile floors. The kindergarten room has linoleum floors. The corridors have salt glazed tile walls, locker height, with cinder block above, a 12 foot ceiling height, linoleum floors and sound treated ceilings. The results are surprising. There is no corridor confusion. Pupils in one room can leave the building without disturbing the other rooms. The radio may operate without echoing.

The following statements give the underlying reasons for the economy in design and construction of the Monroe School:

1. The entire structure is fire-resistant, being reenforced concrete throughout.

2. There is no waste cubic space, not even attic space between the ceiling and the roof. The shape and the arrangement of the building are such as to make a maximum amount of the cubic footage into usable space.

3. Simplifying the design has simplified construction and speeded up the work, lowering the cost of the building. Ten weeks from the starting date, the roof slab was poured in place. During these ten weeks, the contractor used form lumber, sand, gravel, reenforcing steel and cement put in place by common labor.

4. These fundamental materials are low in cost and could be purchased near the job to minimize delays. The structure is self-supporting, necessitating no delays because of the need for special material or special equipment.

5. Design and method of construction enabled the use of a large

Architect's Outline of Monroe School, Wayne, Mich.

Capacity: 360 children

Cost: \$77,863, including architect's fees and field supervision; \$8650 per room, or \$217 per pupil

Two story, fireproof, self-supporting concrete structure

FIRST FLOOR:

Three 22 by 32½ foot classrooms; a two unit principal's office, each unit 9 by 9 feet; kindergarten, 22 by 32½ feet, with an alcove 9 by 16 feet, and two toilets; coat room; two boys' and girls' toilet rooms; janitor's closet, and men's toilet.

SECOND FLOOR:

Three classrooms, 22 by 32½ feet; one classroom, 22 by 32½ feet, with a 9 by 16 foot alcove; one special room, 19 by 25 feet; corridors, 11 feet 6 inches; book room; teachers' rest room with toilets, and janitor's closet.

CONSTRUCTION DETAILS

Linoleum floor in corridors and in kindergarten.

⅛ inch asphalt tile in all classrooms.

Quarry tile in toilets and vestibule.

Salt glazed brick tile 5½ feet in corridors, stairways and toilets.

Steel lockers in corridors, 2 pupils per locker, 137 lockers, not including kindergarten.

Flush metal teachers' cabinet.

Flush supply case in each room.

About 40 feet of cork board, 14 feet of blackboard in each room.

Salt glazed brick tile cover base throughout.

Cinder block painted wall and partitions, recessed radiation.

Wood trim (little plaster was used).

Acoustical treatment in all rooms and corridors.

1 inch insulated ten year roof, copper flashings.

Cement stairs with grits cast in treads, concrete railing.

Vitreous china fixtures throughout.

Coded fire alarm.

Two circuits for lighting per room, inner row controlled by electric eye.

Radio, automatic phonograph player and speaker in each room.

Electric clock in each room.

Split system of ventilation and forced hot water heating.

Remote control of all dampers.

Ventilating fan in basement.

Main steam main less than 20 feet long.

Zone control on hot water heat.

Steel boiler, large size, underfeed, side dump stoker.

All copper water pipe in plumbing.

1100 feet of sewer, 8 inch crock.

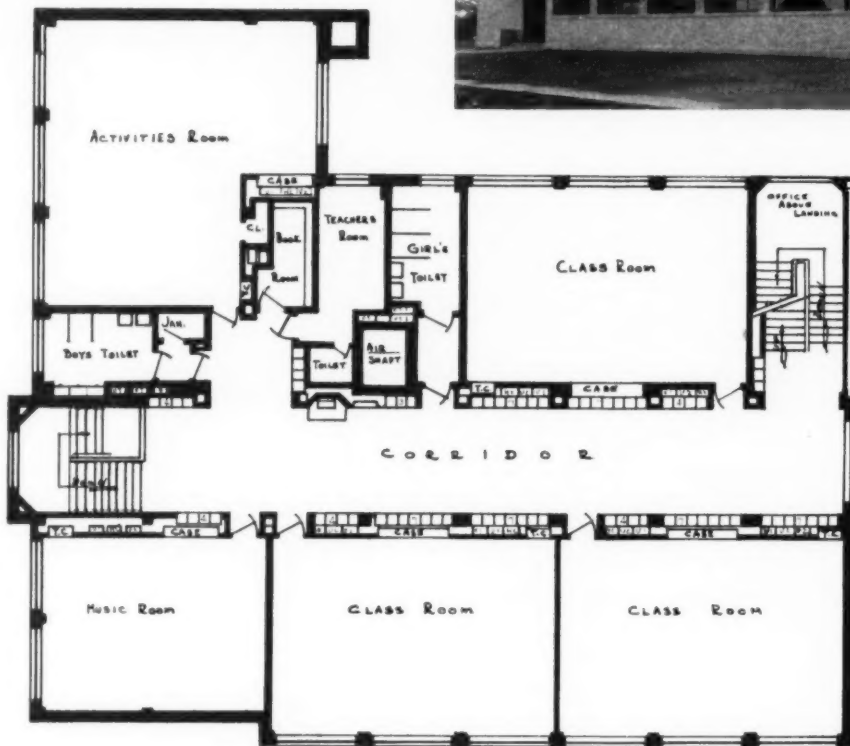
Flag pole; 240 feet of sidewalk.

Rough grading, wire screens over east and south windows.

Equipment for five rooms.

PETER E. BRENDER

Engineer, Wayne, Mich.



Above: The exterior of Monroe School, Wayne, Mich., is simple in design, thus simplifying construction details and lowering the cost of the building. There is no waste cubic space because the building is almost square. Brender and Beam of Wayne designed the building. The first floor plan (below) and the second floor plan (left) show how certain features of the building were designed to comply with Michigan school law and to conform to modern educational practice. A new law demands fire-resisting buildings and forbids placing the heating plant underneath the building. Modern school planning requires more classroom space than formerly. With this in mind, the rooms in this building are 32 feet 6 inches instead of 30 feet.

percentage of common and intermediate labor, easily obtained locally and at lower rates than skilled tradesmen.

6. Consistently simple low cost ideas in design kept the major portion of the building within the terms and limits of low cost labor per unit.

7. Interior partitions are of cinder block, spray painted; again, low cost materials and minimum labor cost.

8. All equipment, trim and finish were selected with a view to low maintenance cost, as well as to comfort. In addition, the cinder block walls with the floor and ceiling treatment make the building quiet with a minimum of echoes and corridor noise in the classrooms.

9. Plans and specifications were prepared in an effort to provide a clear, one statement set, which required no special interpretation for either contractors or owner and a minimum of changes after construction was begun.



Chalk Dust

Assistant Principal's Anthem

When bigwigs come to visit school
To see what they can see,
The principal, that jovial man,
Beams hospitality.

But when wild mammas bustle in
Intent on raising hob,
The boss is in a conference,
The assistant gets the job.

*Are there doggies on the playground which are
apt to play too rough? Are there parents
at the portals who are looking grim and
tough? Are there overbearing salesmen who
can't take a mild rebuff? Go to, O Supervisor,
it's time to do your stuff!*

When Rotary requests a talk
On Guidance and Its Quirks,
The principal gets out his chalk
And gives the boys the works.
But when the roads are skiddy,
No free lunch and no fee,
The principal, that generous soul,
Hands out the job to me.

*Do seven kids need bawling out, and all of
them resistant?*

*The busy boss can't be disturbed, so send for
the assistant.*

*And do the boilers need some steam as all the
teachers claim?*

*By gosh, I'll give 'em pressure, for that's my
middle name.*

• •

ALAS and alas! Like all school people who reach the age of 40, I have fallen low. I have promised a publisher to write a book. After 27, or less, flattering offers from publishing companies not listed among those you ought to know, I have, at length, received a bona-fide suggestion from a publisher asking me to submit my glowing verbiage to the crudity of his bindery.

O Muse Librorum, if I absolutely must write the book, let me write one that is fairly readable! Let me throw away my meager hoard of \$10 words and write in plain English. Let me put down letter upon letter, and word upon word, but let there be some meaning to the words after they have collected themselves into sentences. Let me split as few infinitives as seems reasonable and torture the word "very" as few times as possible.

And when the book is written, let him who reads, if such there be, read with tolerance and say: At least the fellow didn't try to hide his ignorance.

Or better yet, O Muse, let the book remain unwritten where it will be an everlasting credit to me for things that I might have done but never did.

• •

BLESSED is the schoolmaster who realizes that it is just as important and socially useful for a teacher to take time graciously to instruct little Herbert in the manual manipulations leading to a mastery of the skills that deal with the intricacies of his intimate attire as it is for that teacher to be on time for the weekly seminar. Blessed is the principal whose sense of relativity is so developed that he can find money for the latest kindergarten materials as readily as he scrapes out the cash for other things wherein he may engrave his name for a possible posterity. Blessed is the school executive who can grin and sneak away when he finds his favorite precepts in methodology are being violated to obtain results of which he never dreamed. Thrice blessed is he, for he is a good egg and commands the respect of his faculty.

• •

AND when they shall ask of me: What did this one do to make the world a little better, to make life a little brighter, to make democracy a little clearer, I shall answer.

She was a school teacher. It is true that she sometimes felt mean and dispirited and discouraged. It is true that she undervalued herself and her work and that she often failed to see the vision of her achievements. It is true that she sometimes indulged in too much aspirin of a Friday afternoon.

Nevertheless, in her humble and unselfish way, she brought light into dark places, she brought joy into troubled hearts, she brought beauty where ugliness had held sway. For these things, do we teach boys and girls.



Rural Guidance Is Different

J. ROY LEEVY

Superintendent, Westfield Township
High School, Westfield, Ill.

GRANTED that there is a need for guidance and that it is a function of the rural high school, the procedure for setting up a program of rural guidance necessitates planning and organization. In this planning the principal should make a careful analysis of the community. He should know the history and development of the community in which the school is located. He may learn the community background from an "old settler" if there is no record of its history and development available.

Then the principal should make a careful analysis of the school. He will want to know about its history and development. He will also need to know the kind of school population, the various industries and activities of the community. This may take time yet this work is the foundation for a guidance program. It will not pay to speed up this preliminary work too hastily. It would not be wise to recommend employment of a guidance specialist from the large city school system where a guidance program is in existence to speed up the program. While it might be wise to consult one or more guidance specialists about the values and the problems of guidance, it is necessary for the principal to take the community along with him as he builds a program. One weakness of the educational program today in the small rural high school is the "blind imitation" of the large city school system.

Then Enlist Co-Workers

When the high school principal has carefully studied the community and the school he is ready to enlist the cooperation of his co-workers, the board of education and the faculty. The method will depend upon the type of board of education and faculty. The board of education may frown upon the whole program if the principal fails to present the program properly. It would be unwise

to present it solely from the standpoint of something new.

It is better to interest the board on the basis of basic pupil needs. To do this the principal should have basic information as to what the high school's graduates are doing and, likewise, what those boys and girls are doing who did not complete high school. The latter group is often overlooked. If the principal has done a good job of presenting the program of guidance to the board of education the board will understand how the program of guidance will make the whole educational program more effective.

Parts of the program should be introduced separately to the board; for example, printed materials, such as handbooks and bulletins of information about the school's program, will call for an increase in the school's budget.

Educating the Faculty

After the cooperation of the board of education has been obtained, the principal will enlist the cooperation of his faculty. This may be accomplished through a series of well-planned faculty meetings, at which guidance is cautiously interpreted to the teachers. The principal will need to organize a guidance committee from his faculty. Each teacher should be given an opportunity to participate in the guidance program. Many rural high school teachers are loaded too heavily with teaching subjects so the guidance work will have to be well distributed among the faculty.

The teacher of vocational agriculture should make a good counselor for rural boys because, as 4-H Club leader, he has had an opportunity to become acquainted with many of the farm boys. He may need to be orientated to other fields of industry through the reading of guidance and occupational literature.

If there is no agriculture teacher in the school system there may be a

good physical education and health teacher or there may be a science teacher who may become assistant counselor, to work in conjunction with the principal, who should be the chief counselor.

A woman faculty member should work with the principal as an assistant counselor for there will be many problems among the girls in which the principal will need the help or assistance of a woman teacher. This does not refer to purely disciplinary problems for the problems of the rural high school girl are problems concerning the home. A study I made of the occupations of some 980 rural high school graduates over a ten year period revealed that from 64 to 84 per cent of the rural girl graduates had become housewives during a ten year period.

The activities of the guidance committee may well consist of similar surveys and the development of a continuous school census. Other activities may consist of setting up cumulative pupil personnel records and making surveys of community industries, civic clubs, fraternal and social groups. Few teachers in rural high schools today know much about the community in which they teach, so this information will help the teacher to know the community.

Interpretation Is Vital

Interpreting the guidance program to the public is vital to the efficiency of the program. How this should be done depends upon the person or persons available and upon the type of school community. Some writers on school publicity suggest that any program of the school can best be interpreted to the public by enlisting the cooperation and interest of the local newspaper editor. He usually knows the community and the people better than anyone else and he is usually interested in the whole educational program. What shall be placed in the local newspaper concerning guidance depends upon the nature of the rural community and

the nature of the articles. It is wise not to say too much at first.

Another means of interpretation is through contact with business and professional men and women of the community. This may be done through civic groups or by the principal in person. It is unwise to force interpretation upon any group organization; it is far better to wait

for an invitation from the organizations.

There is a minimum of two kinds of guidance in the rural high school, educational and vocational. There are various ways of giving educational guidance for there are at least two groups of pupils who are in need of it. There are the freshman boys and girls who have gone to

school in the one room school where a single teacher has mothered them for eight years. In the high school they come into contact with several teachers and they will need counseling. The second group in need of educational guidance is the senior class.

Here is one method: In the spring of the year the eighth grade boys and girls who intend to go to high school the following fall are invited to the high school for a day. During this day of invitation they are escorted about the building, introduced to high school pupils and given handbooks and bulletins of information about the school. In the evening the eighth grade pupils are guests at an "open house" program at which there are displays of departmental work and a musical or literary recital. At the close of the program the eighth grade pupils are presented with diplomas, entitling them to enter high school, by the county superintendent.

This procedure may be followed by an early fall preregistration, especially planned for freshmen, at which time each pupil is given a free medical examination and bulletins of information, such as library helps, parking and auto driving helps. These are explained to the freshmen by counselors.

The next big job of educational guidance comes at the close of the school year when some of the members of the senior class begin to think about going to college. The principal may confer with the seniors both individually and in groups. There should be an abundance of college bulletins available at all times in the library of the school.

Vocational guidance may be handled by the principal and the agriculture teacher. A survey of the occupations of the high school graduates will aid the principal in collecting the right kind of literature about certain occupations.

The placement of rural high graduates in industries depends upon the local school system and its proximity to an industrial town. As much follow-up work of pupils, both in college and in industry or in farm work, should be done as it is possible for the high school principal to do with the assistance of his guidance helpers.

Developing a Materials Room

AURELIA DAVIS

Teacher, J. C. Murphy Junior High School, Atlanta, Ga.

THE materials room at the J. C. Murphy Junior High School, Atlanta, Ga., is an outgrowth of a visit made by three Murphy teachers in December 1937 to the Parker District High School at Greenville, S. C., where a progressive program has been developed.

A materials room was among the many fine things observed there. This was a large room containing textbooks, maps, pictures, charts, drawing materials and supplies and aids of all kinds. A teacher wanting any material for a unit of work simply sent the subject of a unit to the materials librarian who collected and sent to that teacher everything in the bureau that pertained to that unit. This help was given to every school throughout the district. The materials, it was observed, were contributed by teachers, pupils, librarians and friends.

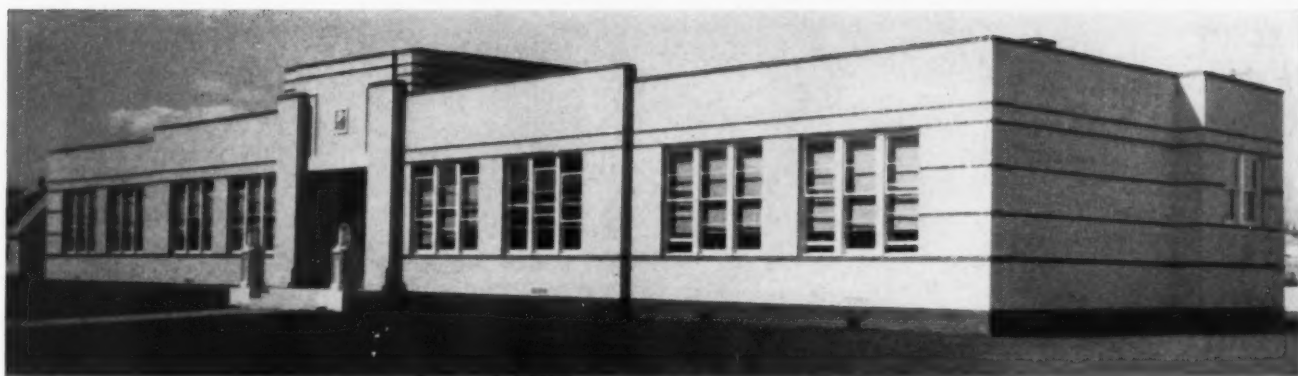
The report of this idea was received enthusiastically by the principal and faculty at Murphy. It was decided to undertake such a project at this school, whereupon the principal and a committee from the faculty selected the room adjoining the office of the school, purchased filing cabinets and display cabinets and solicited from the faculty materials that already had been helpful. Before this room was equipped, however, it was decided that more space would be needed; a classroom adjoining the library was converted to fulfill the need. Two sides of the room were equipped with shelves for magazines and books to be used by the faculty in planning their work. Tables, a magazine rack, chairs, a closed cabi-

net and a picture filing case completed the initial equipment.

The development of the materials room was rapid. The teachers continued to send in pictures, clippings, maps, pamphlets and similar materials that had proved beneficial in the course of their various teaching projects. These were labeled according to the title of the unit and were filed in the cabinet under that title. These cabinets now contain helps on such subjects as: Indians, special programs, Atlanta, international relations (2), Georgia, conservation, migration, democracy, trade, communication, transportation, pioneers and housing.

The display cabinets show the handwork of the pupils and the projects accomplished in various classrooms. New materials are displayed on the tables so that the teachers become almost immediately acquainted with the possibilities they afford. On the shelves are the books bought especially for the teachers, copies of published units, encyclopedias, reference works of various kinds, sets of supplementary texts and single copies of books useful in the classroom. Some of the booklets are in large enough quantities to be used by an entire class.

The materials room is under the supervision of the librarian, who is a member of the materials committee. All materials may be signed out by the librarian to the teachers for a reasonable length of time. The art department cooperates with the materials committee in mounting pictures and clippings and in similar technical details.



North Side School, Kalispell, Mont., is a one story structure with fireproof basement. The first floor plan is shown below.

Two Schools in Montana

FRED A. BRINKMAN

Architect, Kalispell, Mont.

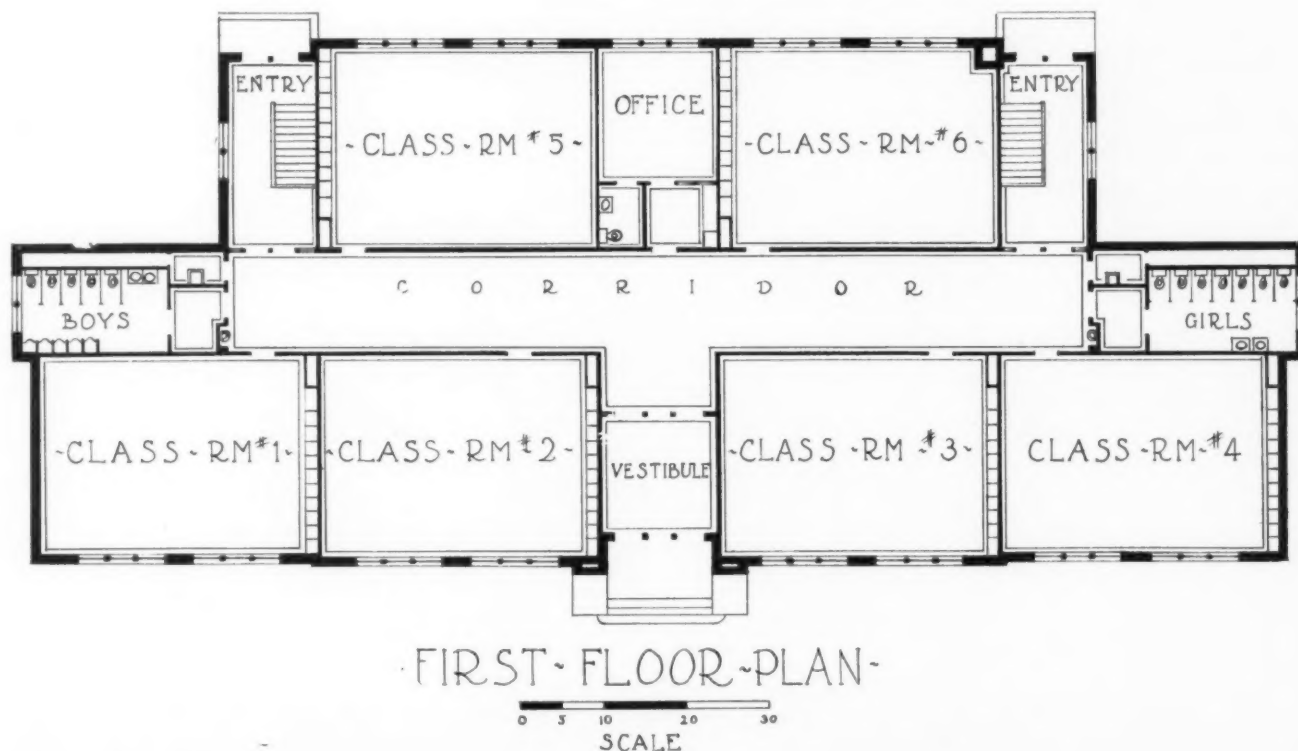
WESTERN Montana has had an unprecedented growth in population in the last five years as the result of an influx of people from the drought stricken areas. The problem of furnishing these people with the necessities of life has been difficult. Among other things provision for adequate school housing has been one of the major considerations.

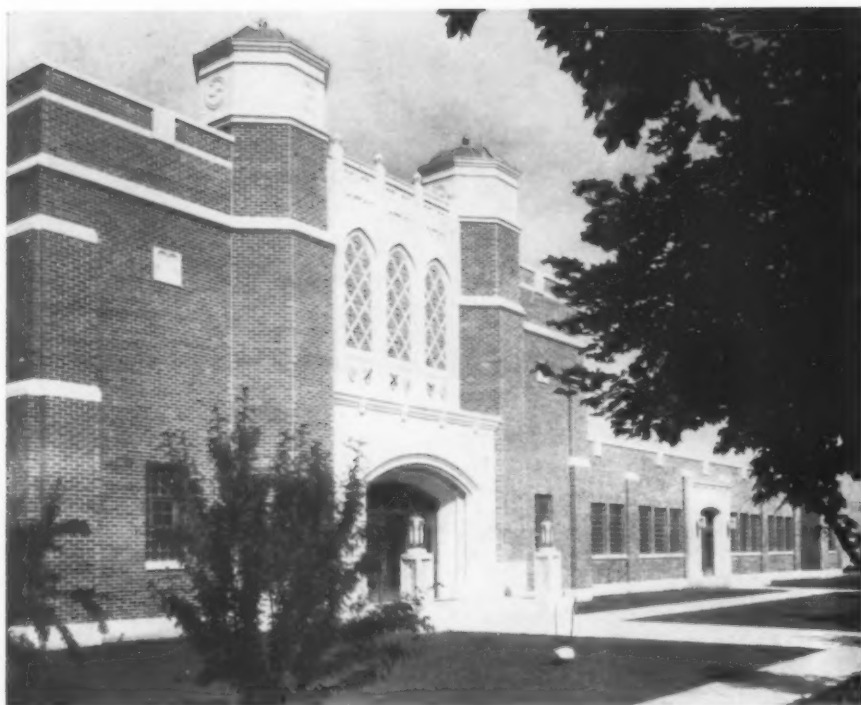
In Kalispell, Mont., this lack of accommodations has been more pronounced, perhaps, than anywhere

else in the state. The last grade school building program was completed in 1929 and in the interim the school enrollment had increased to the point at which basement rooms and frame buildings were occupied. Various plans for enlargement of the school plant were discussed. In the spring of last year an application for the construction of two new buildings was submitted to the Public Works Administration and, after approval

of the project, contracts were awarded in the amount of \$155,600, including equipment, for both buildings. Work on the new structures began September 1938 and was completed in June 1939.

The first of the two buildings is designed as the original unit of a junior high school for the district. It provides for a gymnasium with shower and locker rooms and, in an adjoining wing, a library is included





The junior high school at Kalispell is collegiate Gothic in design. Below: The first floor plan, showing gymnasium and classroom wing. Eventually this building will be extended to include other classrooms and auditorium.

with classrooms for music, art and general science. Eventually this building will be extended to include additional classrooms, an auditorium and administrative offices.

The architectural treatment is collegiate Gothic, considered to be best suited to the environment and to the type of instruction offered. Exterior walls are rendered in a soft shade of variegated dark red and brown tapes-

try brick with a judicious combination of cream colored terra cotta. The copper roofed towers and an unusual chimney lend an old world atmosphere to the whole composition without sacrificing the basic school needs. The building is of fireproof construction with the exception of the roof.

Lobby and corridors are finished in Philippine mahogany with gold

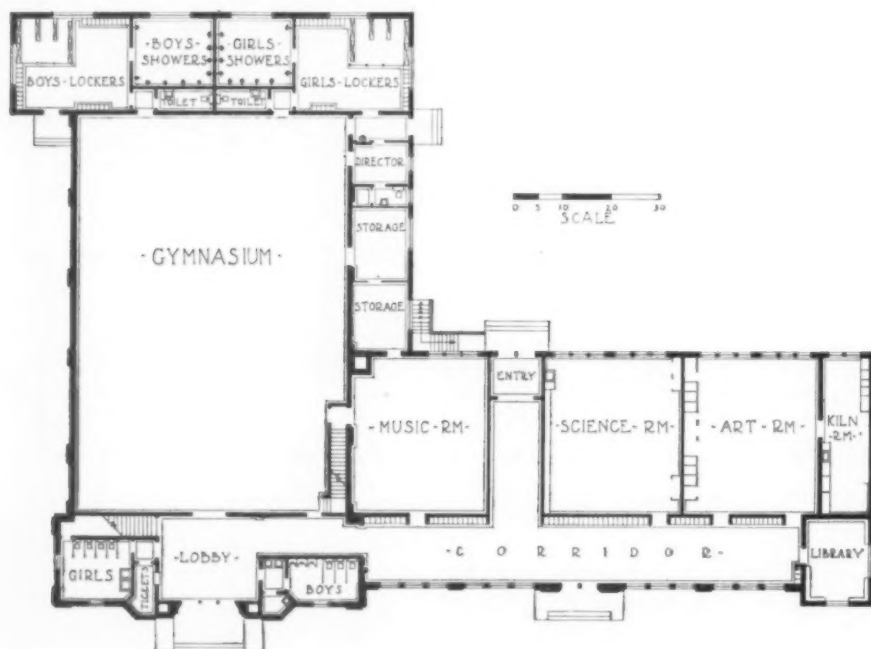
sprayed acoustical plaster walls and ceilings, which are attractively decorated in red and blue Gothic stencils. Classrooms and library have smooth plaster walls and ceilings, painted in pastel tints of blue, primrose and coral, and battleship linoleum floors in Paisley gray. The gymnasium, with a seating capacity of 600 for basketball games, is finished with a smooth red brick wainscot, maple floor and acoustically corrected walls and ceiling. The location of the physical education department and music room at the end of the building eliminates the possibility of disturbing academic class work.

In the basement a large fireproof fuel room is required for the storage of wood. The heating plant, which is vacuum steam with automatic controls and air conditioners in the classrooms, is large enough to take care of future additions to the building. At the present time it also is used to heat the old Central School by means of a connecting steam tunnel.

The second of the two buildings, located in the northwest part of the city, is intended for the use of grade school children and is a one story structure with fireproof basement. Provision is made for six classrooms, office, playroom and heating plant. There is a quiet dignity about this building with its plain cream colored brick surfaces relieved by horizontal lines and base of black vitrified brick. The entrance is massive and clean cut with a contrasting refinement of detail in the chromium grillework and electroliers.

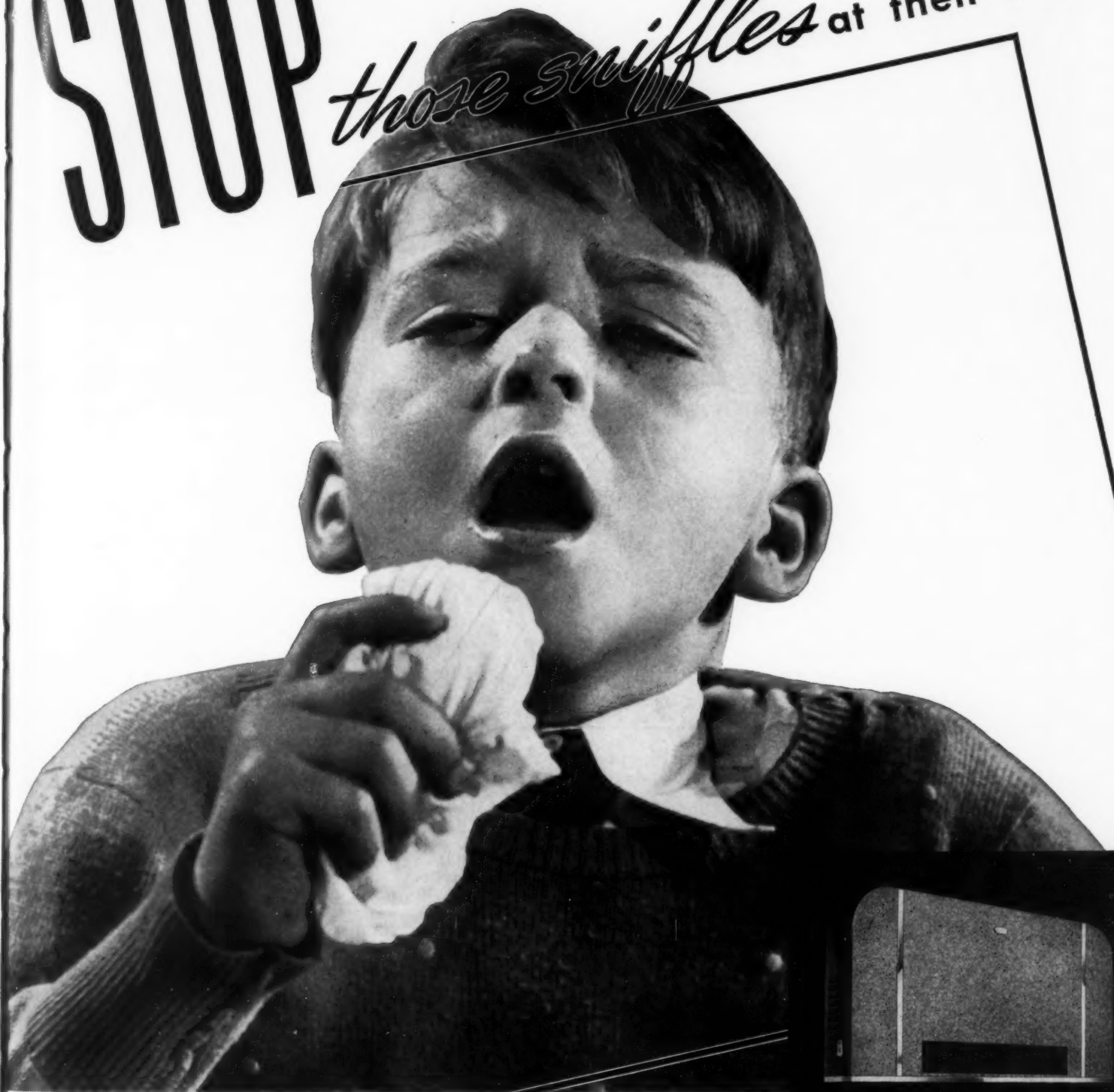
The materials of construction are solid brick bearing walls, concrete foundation, frame floors, interior partitions and roof. The interior is finished in brown and buff with decorative modernistic stencils in the main vestibule.

Careful consideration has been given to sanitation and fire protection. Corridors and toilet rooms have waxed composition floors with sanitary cove bases and fiber board wainscots trimmed with chromium molds. In order to minimize janitor labor, subway foot scrapers are installed flush with the concrete slabs at all entrances. An appreciable saving in the cost of construction was effected by the use of recessed metal lockers in all classrooms.



STOP

those sniffles at their source



Check your heating and ventilating system

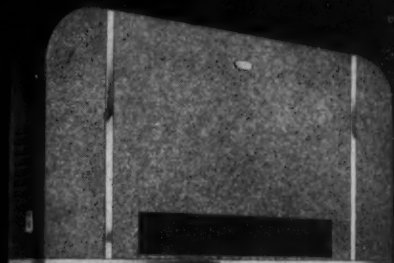
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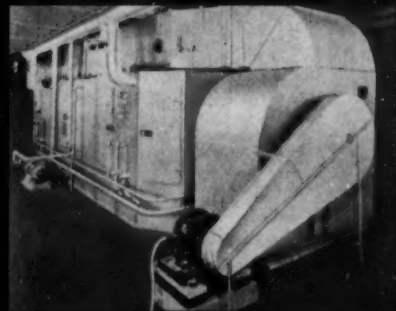
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Why Good Children Are Good

FRANK L. VAN ALSTINE

Principal, Groveland School, Wayzata, Minn.

WHEN the boys and girls in the eighth grade of the Groveland Experimental School, Wayzata, Minn., learned that they were soon to have a new combination electric recording machine and radio, a discussion immediately developed concerning where the machine should be kept and who should be allowed to enjoy it during the noon hour and at other times when it was not being used in the formal educational program.

Various suggestions were offered and it was finally decided that the possession of the new machine should be awarded on the basis of good school citizenship. The eighth grade homeroom challenged the children in the fifth, sixth and seventh grades to join them in the contest.

Committee members were appointed by the president of each class to draw up a set of rules and regula-

tions governing the contest. After the accompanying rules and regulations (below) were adopted the problem arose concerning the best method of judging each class by these rules. After much discussion it was decided that each class should appoint two inspectors whose duty it should be to report, at the end of each day, all activities that would deduct from a perfect score for the class to which the particular offender belonged. The seventh grade homeroom teacher was elected to receive all reports and properly to evaluate any and all complaints. It then became her duty to report each morning to the president of each class who, in turn, saw that the graphic representation of the contest was posted.

An offense by any member of a class reduced the total score for the class that day since each class started each day with a perfect score of 145

possible points. Each inspector reported on any pupil in any of the four classes and inspectors held office for one week only.

The average grade scores of the contest, which lasted for a period of thirty-seven days, were as follows: seventh, 77; eighth, 68; fifth, 68, and sixth, 54.

With rare exceptions the seventh grade maintained itself at the top of the scale while the sixth grade consistently remained at the bottom. Another interesting feature is that the entire group seemed to score only about 50 per cent of what it was possible to score.

As the contest continued and as the graphic representation of their efforts continued to stare them in the face, the children made heroic efforts to better their scores. The possession of the radio, which was awarded to the highest ranking class each week, became of small consequence. But they were much concerned over trying to see that their score climbed closer to the top of the scale. Some of the classes even ostracized some members and refused to give them a seat with the group. Numerous other schemes were tried and proved reasonably successful at the moment but none seemed to have a lasting effect on the conduct of the erring members. The graph shows that, despite all their efforts, the standing of the classes at the end of the contest was nearly the same as the standing at the beginning.

A careful record was kept of all reports which were submitted by the inspectors. The frequency of offenses and the number of times each occurred are listed on page 62.

In regard to the list of offenses it may be noted that the school has no regulations against whispering. The school follows an activity program of teaching and the inspectors were asked to report only talking which seemed to be unnecessary or which seemed to bother others.

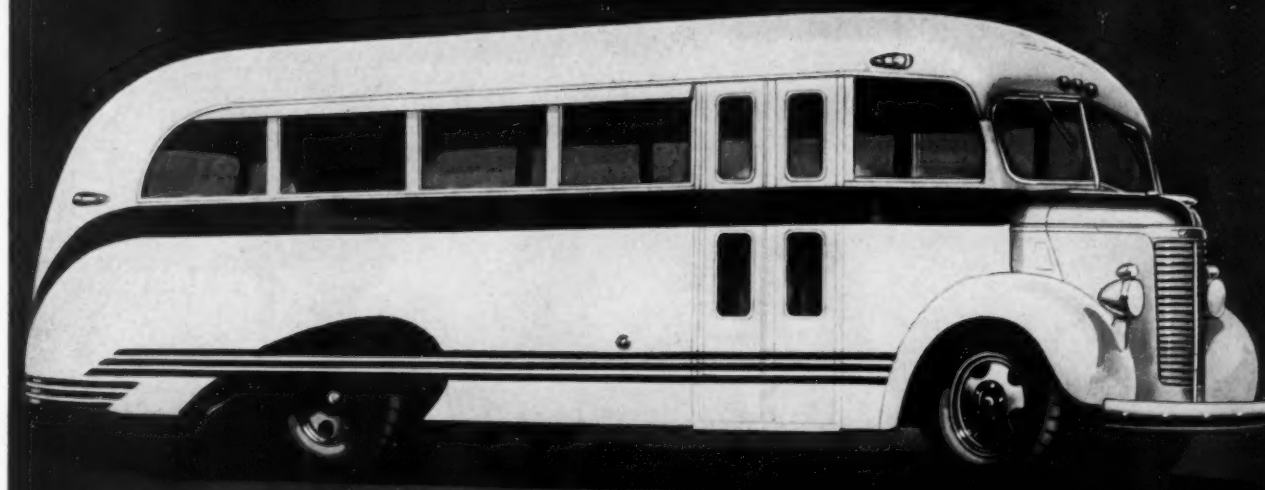
Taking into consideration the fact that the contest was carried on over a period of two school months and that there were 101 children in the

Rules Governing Radio Contest and Evaluation of Points

General Good Conduct	25	Punctuality	15
Acts of Courtesy	25	Be in your seat when second bell rings.	
Apologize for misbehavior.		Be at lunch table at proper time.	
Attentive at all times; teacher's directions given only once.		Promptness in handing in assigned papers.	
Consider classmates' rights. They need a quiet environment.		Thrift	10
Quietly find reference materials.		Be economical in use of towels, soap and all other materials.	
Be courteous to schoolmates, teachers and visitors.		Use your time profitably.	
Use "thank you," "please" and "pardon me."		Take part in banking activities.	
Don't interrupt others.		Health	10
Responsibility	25	Wholesome play activities.	
Preparation of lessons.		Leave tables clean.	
Proper attention to all special duties.		Pleasant conversation at table.	
Keep desks tidy.		Eat slowly. Twenty minutes at lunch table.	
Keep room neat and orderly.		Proper conversation at all times.	
Care of school property.		Safety	10
Put used towels in container.		One step at a time going up or down stairs.	
Put lunch garbage in container.		Avoid climbing in dangerous places.	
Keep line at the fountain close to the wall.		Be quiet and orderly in fire drills.	
Avoid personal contact.		Use playground equipment properly.	
Use tones of voice that are moderately loud.		Obeys rules concerning bicycles.	
Show good leadership.		Do not play on highway.	
Proper Attitudes	20	Put nothing in mouth you don't intend to eat.	
Show good school spirit.		Acts of Courage	5
Support all school activities.		Help a younger playmate who may be in trouble.	
Show good sportsmanship.		Admit that you are wrong.	

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fifth, sixth, seventh and eighth grades, the results show, in the estimation of the faculty, a fine, well-behaved group of young citizens. In addition to becoming acutely conscious of how their conduct affected the welfare of the whole group, the children did an amazing amount of research in almost every field of study included in the elementary school curriculum.

In conclusion, the following summary of points as disclosed by this study are presented:

1. Elementary school children in the middle grades are interested in the activities of their classmates.

2. Elementary school children in the middle grades respond quickly to almost any stimulus for good citizenship but the effect of the stimulus wears off just as quickly as is shown by the wide fluctuation in the score of any class.

3. The offenses, if they may be called offenses, of the elementary school children against accepted rules and regulations are trivial. Not one of the 2818 offenses reported by the children in this study could be classified as serious enough to merit more than passing attention by the teacher or principal.

4. Elementary school children in the middle grades are good citizens because they want to be good citizens and not because of prizes offered

them or because of the social pressure of their classmates.

Offenses in Order of Occurrence		
Rank	Offense	Times Reported
1.	Whispering	1355
2.	Running in halls	277
3.	Fighting	179
4.	Unnecessary noise	139
5.	Returning to room for forgotten articles	124
6.	Personal contact	124
7.	Wasting time	83
8.	Tardiness to class	72
9.	Abusing other property	69
10.	Profanity	66
11.	Chewing gum	53
12.	Inattention in class	38
13.	Discourtesy	37
14.	Thumb and pencil chewing	36
15.	Disobeying orders	35
16.	Throwing chalk	20
17.	Tripping classmates	15
18.	Writing notes	15
19.	Whistling	14
20.	Pushing classmates	12
21.	Throwing paper wads	8
22.	Eating candy	7
23.	Throwing paper airplanes	7
24.	Drawing pictures during class period	6
25.	Incomplete work	6
26.	Making faces	5
27.	Pinching	4
28.	Sliding on banister	4
29.	Playing with smoking equipment, pipes, matches and cigaret lighters	3
30.	Untidiness	3
31.	Erasing class work from blackboard	2

making personal surveys of the ideas, opinions and desires of the parents in matters of education. It was interesting to note among the replies the similarity as to what was expected of the schools. Apparently, parents know what education should do for their children, even though educators are not agreed!

The list of questions asked in this manner was followed by a questionnaire that invited specific queries about education. This was largely concerned with curriculum changes, social problems of the school and increased offerings. The questions were compiled and augmented by a list derived from educational periodicals and newspaper articles, plus a series of traditional pattern questions. These constituted the nucleus of an "information, please" survey of education in general and of our own schools in particular.

One difficulty faced was that of organizing the questions in logical reading order, pyramiding them in order of difficulty. This was deemed necessary in order that a complete overview of the picture might be shown. Next in order was the hurdle of terminology. Relatively little educational material could be found written in simple, understandable terms. It was, therefore, necessary to forget the oral tools of the trade and to concentrate on explaining the program in lay terms. This acted as a temporary stymie but, after some experimenting and revision, the material was finally embodied in pamphlet form.

It is comparatively early to draw conclusions as to the outcome of the change in education in the community. However, there seem to be some definite advantages to the procedures followed that are indicative to some degree of future success. First, the pulse of the community was utilized as a guide post, serving to check, modify and, in some cases, revise what seemed to be imperative objectives. Second, community participation in formulation of plans and policy should later mean community cooperation in advancing the welfare of the schools. Finally, a school executive who reveals his philosophy and procedures to the supporters of the community's largest enterprise is truly laying the foundation of a democratic system of education.

Selling Educational Innovations

WILLIAM E. HAYES

Principal, Intermediate School, Raritan, N. J.

ONE of the real problems faced by administrators in transitional schools is that of interpreting a new educational program to the public. Granted that it is the job of the school executive to bring matters of general interest before the taxpayers, the machinery of operation for this has often become clogged with irrelevant issues, weak approaches and poor methods.

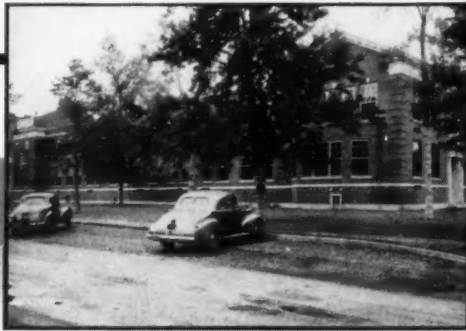
"Shall we go along quietly and change without fanfare?" "Shall we announce the new program and publicize as we go?" "Just how much can we expect the public to understand?" "What does this change mean to the community?" Familiar questions, all, but questions the an-

swers to which may mean the success or failure of a new program.

In the main, the one generalization that is advantageous to follow concerns the ability of the community to accept and to digest a transition. Far better to proceed slowly, carry the program forward step by step and consolidate the gains than to startle a community with revolutionary procedures. Teachers, principals and taxpayers should all be passengers in the educational vehicle, proceeding down the road of advancement.

When the ground was broken for a new program in the community of Raritan, N. J., the campaign of selling it began with the teachers

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Measuring Teacher Load

CHARLES EVERETT MYERS

Supervisor of Research, Virginia State Board of Education

TWO important aspects of teacher load measurement need to be distinguished clearly: (1) the optimum teacher load for a school and (2) the optimum teacher load for a particular teacher.

The data presented by Kenneth W. Eells indicate that the criterion of 50 best and 50 poorest schools does not distinguish between the simple pupil-teacher ratio and the Douglass formula as valid measures of "best" and "poorest" schools.* It appears reasonable that 400 pupils in one school and 400 similar pupils in another school of the same type call for the same number of teachers and that the simple pupil-teacher ratio is an adequate measure of the teacher load to be carried. Whether or not the load is carried and how it is carried are separate problems.

"Two Serious Shortcomings"

The first of the "two serious shortcomings" of the pupil-teacher ratio as a measurement (as stated by Eells) relates to internal school organization. If one school is more inefficient in the organization of its work than another and thereby creates more work to no good end, it does not have a heavier teacher load than the more efficiently organized school.

The factors of class size, length of period and nonclassroom assignments are all vital elements in the internal organization, control and management of a school, rather than a measure of the total work to be performed by it. A school with 440 pupils should call for approximately 10 per cent more teacher work than a similar school of 400 pupils. Hence, if schools are of a type sufficiently similar to be compared, the simple pupil-teacher ratio appears to be the proper measure for this purpose.

With the distinction here made, both "shortcomings" of the simple pupil-teacher ratio apply only to the

work of individual teachers and the Douglass formula is a desirable and useful refinement for comparing the teacher loads carried by different teachers and as an aid in assigning work to teachers.

Though Eells' treatment of the data does not make a case for the reliability of the Douglass formula in measuring the extent to which a school performs its duty in carrying out all of its responsibilities, judgments based upon the type of data the formula calls for should be useful for this purpose. This is a measure of the quantity and diversity of a teaching program rather than of the effectiveness of the teaching. The 50 best and the 50 poorest schools were doubtless judged more on the evidence of desirable educational outcomes than on mechanical methods often thought conducive to good education.

A question also may be raised as to what constitutes "favorable teacher load conditions." Eells evidently assumes that a low teacher load is the desirable one. The converse of Eells' statement may be suggestive: Good educational programs may be carried out despite light teacher loads and poor programs may be carried out despite relatively heavy teacher loads.

Application of Data

Such objective data as we have appear to indicate that our studies of teacher load may not include sufficient range to show great differences. A range of from 18 to 30 pupils per teacher may be comparable to a horse carrying 18 to 30 pounds, or 360 to 600 pounds. A teacher load below optimum may be a serious handicap to effective teaching as is one above optimum. The point at issue is that expert professional judgment, conditioned by personal experience, may properly determine how many pupils should be assigned teacher A in school B, but that scientific students of education

should not lend their influence to the popular sentiment favoring small classes or large classes except as they have been demonstrated to be more effective. Such an important factor in school finance as the optimum teacher load should not be left to personal opinion or to mob psychology. If the effect of teacher load upon educational results is not measurable, its financial effect upon the budget is measurable.

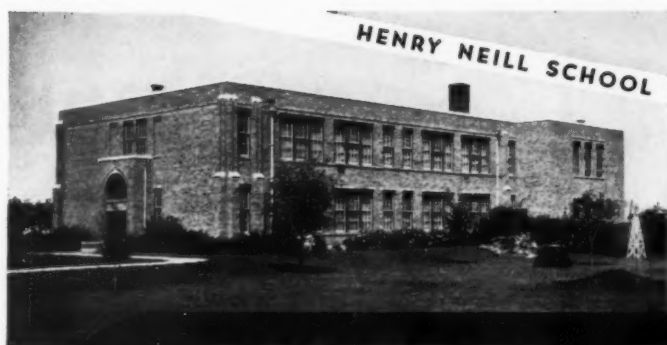
The optimum teacher load may be as variable as the optimum load for horses. It is self-evident that one vigorous horse may carry 150 pounds with the same ease another horse carries 50 pounds. Then, the optimum horse load will vary with the type of pack, the vehicle drawn, the type of draft or the speed of work.

Measurements Not Practical

Though the cabinetmaker distinguishes between mahogany and old field pine and may find a particular piece of mahogany of no value and a particular piece of old field pine serviceable, his only scientific measurements are of length, width and thickness. The laboratory can measure the load an oak or a pine joist will carry but the carpenter finds his judgment superior to laboratory averages in dealing with particular joists. We would seldom finish a building, if we tried to measure the effect of the windshake, the knot or the dotty spot upon the time a joist will carry a given load. For practical school organization and administration even the Douglass formula may be found more trouble than it is worth. On the other hand, the school administrator, at some stage in his professional education, should learn of as many of the factors of teacher load and as much of the nature of each as educational science can offer.

If educators have a "prejudice" for small classes, casual assumptions that they are desirable by otherwise careful scientific writers tend to strengthen the prejudice and give it the force of scientific authority.

*Eells, Kenneth W.: *Measuring Teacher Load*, *The NATION'S SCHOOLS* 23:49 (Feb.) 1939.



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Tenure Does Not Lock the Exit

M. M. CHAMBERS

Specialist in School Law

THE chief objection, if not the only one, raised against teachers' tenure statutes is the assumed difficulty or impossibility of dispensing with the services of permanent teachers for good cause. Even those who advance this argument with the most vehemence are aware that such is never the intent of the legislature.

Year by year more states adopt tenure laws and, as more and more decisions of their courts interpreting these statutes become a matter of record, evidence mounts to prove that they do not tie the hands of school boards or make the position of the permanent teacher impregnable.

In the first place, tenure statutes invariably provide for the dismissal of teachers by abolition of their positions for bona fide reasons not at all related to the quality of their services, such as a substantial decrease in the

necessary economies, the new board of education could for those reasons lawfully terminate the services of a supervising principal who had been on tenure in one of the former districts.¹

In another Pennsylvania case the board abolished all kindergarten classes and terminated the services of a permanent teacher serving therein. The court said: "When an entire department is lawfully abolished for valid reasons, which may include financial ones, in the interest of a more efficient system, the teachers in that department can be dismissed."²

In a third Pennsylvania situation in which most of the pupils in a school had been enrolled in academic courses, the installation of a commercial department caused a great reduction of enrollment in these courses and a great increase in commercial

Other cases could be cited here from the same state to show that the courts will not tolerate the abolition of a teacher's position as a transparent subterfuge to effect his dismissal for some unlawful reason, but space does not permit description of these cases. Enough has been said to indicate that the positions of permanent teachers may be abolished for valid reasons related to the economical and efficient operation of the school system.

In the second place, tenure statutes always provide that permanent teachers may be dismissed for specific shortcomings, such as incompetency, insubordination, neglect of duty, immorality or other misconduct. Frequently to such a list is added the phrase "or other good cause," to be sure that the statute will not fail to cover every possible situation justifying dismissal.

The tenure laws merely stipulate that dismissal of a permanent teacher shall be accomplished only by certain regular procedures that are designed to prevent gross injustices. These include the preparation of written charges, due notice thereof to the accused in order that he may have reasonable opportunity to explain and defend and a hearing in which both sides of the controversy can be fairly presented.

This hearing need not have all the formalities of a proceeding in a court of law. It is sufficient if the accused is given fair opportunity to present testimony or other evidence in his own behalf and if this evidence is received and examined by the board and not capriciously ignored. After a fair hearing the decision is at the discretion of the board and will not be reviewed by the courts unless it can be alleged that the board's action was in violation of the statute or patently arbitrary or unreasonable.

Obviously the design of the whole procedure is merely to protect the public servant from being dismissed on account of unsubstantiated rumor, unjustified personal malice or petty political greed on the part of un-

Tenure laws are popularly assumed to be iron clad statutes that make the position of the permanent teacher impregnable. As more and more interpretations are handed down by the courts, evidence mounts to prove that boards of education are not prevented from removing teachers for good reasons not related to the quality of their professional services

number of pupils enrolled or the unavoidable necessity of a reduction in the budget. To be sure, these provisions must be accompanied by certain safeguards to prevent their being used as means of circumventing the purpose of the law, but the way is always open for their honest and aboveboard use when the best interests of the school system require dismissal of personnel.

For example, in a Pennsylvania case in which two school districts merged on account of a reduction in the number of pupils and to effect

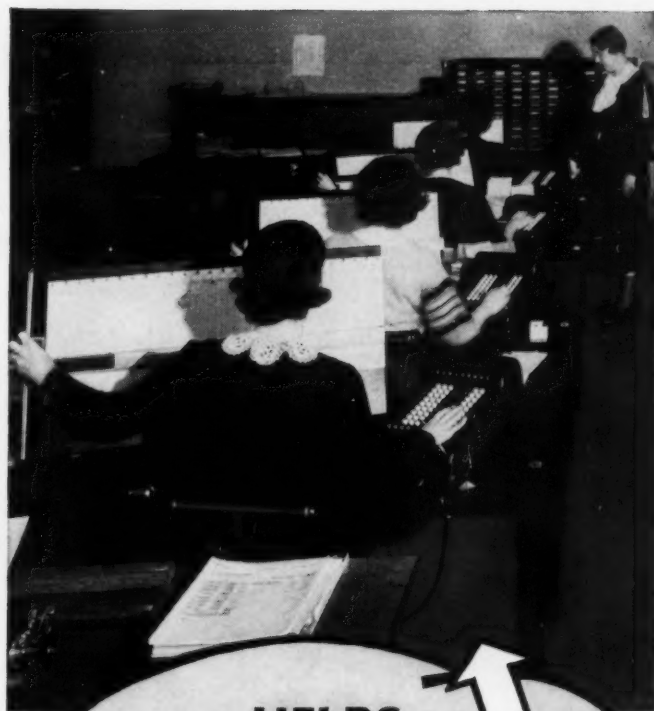
courses. Under these circumstances the court held that the school board could lawfully terminate the services of a permanent teacher on account of the substantial decrease in the number of pupils in courses that he was certificated to teach, notwithstanding the fact that there was no decrease in the total enrollment of the school as a whole.³

¹Walker's Appeal, (Pa.), 2 A. (2d) 770 (1938).

²Ehret v. School District of Borough of Kulpmont, 333 Pa. 518, 5 A. (2d) 188 (1939).

³Jones v. Holes et al., (Pa.), 6 A. (2d) 102 (1939.)

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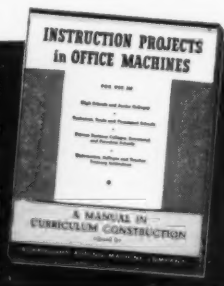
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worthy accusers. It provides an open, orderly and reasonably prompt method of terminating his tenure when sufficient cause can be alleged and proved before the board acting as an unprejudiced tribunal.

For example, in a Pennsylvania school district a teacher had been employed for many years as instructor in history, civics and physical education, including coaching athletics. After he had attained permanent status he was relieved, against his will, of coaching football, whereupon he refused to coach basketball, which had been regularly assigned to him. This was apparently a plain case of insubordination, which under the Pennsylvania tenure law is covered by the phrase "wilful neglect of duty." Accordingly, after due notice and hearing, the school board dismissed him.

In contesting the decision, the teacher attempted to distinguish be-

tween teaching and coaching and maintained that, since the statutory form of contract under which he was employed merely required him to "teach" and made no mention of coaching, he could not be dismissed for refusal to coach basketball as long as his services as instructor in physical education were otherwise satisfactory.

The court, in sustaining his dismissal, held that "teaching" physical education embraces all forms of athletics and that a teacher may be assigned to any coaching duties for which he is qualified. "Disobedience of reasonable orders of a board of education is an act of negligence."⁴

Another case in which the dismissal of a permanent teacher was upheld involved a definition of the words "immorality, incompetency, intemperance," in the Pennsylvania

⁴Ganaposki's Appeal, 332 Pa. 550, 2 A. (2d) 742 (1938).

tenure statute. The teacher in this case was the wife of the proprietor of a local lunchroom and beer garden and after school hours and during vacations she worked as a waitress in her husband's place of business. It was alleged that on several occasions she drank beer, served beer to customers, shook dice and showed customers how to play a pinball machine, all in the presence of school children. Upon these grounds and upon the ground that the superintendent of schools had rated her as unsatisfactory, the board dismissed her.

The court had to determine whether the evidence sustained the charges of "immorality, intemperance and incompetency." In so doing, it adopted a broad definition of these terms.

As to the first term "under the intent and meaning of the act, immorality is not essentially confined to a deviation from sex morality; it may be such a course of conduct as offends the morals of the community and is a bad example to the youth whose ideals a teacher is supposed to foster and to elevate." As to the second, "nor need intemperance be confined strictly to overindulgence in alcoholic liquors; temperance implies moderation and a person may be intemperate in conduct without being an alcoholic addict."

As to incompetency, said the court, this may be broadly interpreted as meaning any disqualification or unfitness to discharge the required duty. Competency as a teacher is by no means limited to ability to teach the "three R's." It includes ability to maintain a course of conduct that will command the respect and good will of the community.⁵

Other current cases could be cited to illustrate that under tenure laws the courts will order the reinstatement of permanent teachers who have been dismissed without proper notice and hearing or upon flimsy or unsubstantiated charges that are not provided for in the statute. The purpose of this article is merely to demonstrate that tenure laws do not hog-tie boards of education, as is sometimes unwarrantedly feared.

⁵Horosko v. School District of Mount Pleasant Township et al., (Pa.), 6 A. (2d) 866 (1939), reversing 135 Pa. Super. 102, 4 A. (2d) 601.

As Others Say It

Compiled by JOHN G. ROSSMAN
Superintendent of Schools, Warren, Pa.

Today is yesterday's pupil.—FRANKLIN.

Mind unemployed is mind unenjoyed.—BOVEE.

'Tis looking downward makes one dizzy.—BROWNING.

No wind serves him who has no destined port.—MONTAIGNE.

A good name is better than a girdle of gold.—FRENCH PROVERB.

I see in every child the possibility of a perfect man.—FROEBEL.

Rumor is a vagrant without a home and lives upon what it can pick up.—H. W. SHAW.

It isn't the size of the dog in the fight, but the size of the fight in the dog, that counts.—HARRY HOWELL.

The individual who is not sure of himself seeks peace by asserting superiority to somebody else.—MORRISON.

If you would tell others how to use a shovel, let's see the corns on your own hands.—ROBERT QUILLEN.

Let us endeavor so to live that when we come to die even the undertaker will be sorry.—MARK TWAIN.

The teacher who can train one pupil to become a great thinker or inspire one pupil with high ideals of unselfish service has done more than a general who leads an army or a millionaire who amasses a fortune.—COLE.

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"Stagger" System Stops Crowding

GUSTAVE A. FEINGOLD

Principal, Bulkeley High School, Hartford, Conn.

MOST urban high schools are in continuous session from 8 or 8:30 o'clock in the morning until 2 or 2:30 o'clock in the afternoon. Because of traffic hazards and because of the need of dismissing school early so that the older pupils may obtain gainful employment, it is necessary from an administrative and educational point of view to keep the pupils in school throughout the entire session.

This situation has brought about the establishment of the so-called school cafeteria. It is to be noted with regret, however, that too frequently building and finance commissions regard the high school cafeteria as a mere frill in the high school setup and, like a frill, it is often in a "torn and frayed" condition. Not infrequently, the cafeteria is located in the basement of the school, with inadequate light and ventilation, thus making the "frill" dark and unattractive besides.

The trouble with our educational setup is that there is too much "absentee landlordism." Board members and school superintendents must of necessity administer from a distance and, therefore, lack visible evidence of conditions that require constant adjustment.

In many schools the cafeterias are far too small, having accommodations for not more than one quarter or one third of the enrollment. The tables are bare, the benches or stools have no back rests and the ceiling is low and not soundproof. The result is that many high school pupils dislike going to the cafeteria.

Obviously, this type of accommodation does not contribute either to the development of good table manners or to the consumption of beneficial meals. Hence, in every sizable high school there are to be found scores, if not hundreds, of children who go without a meal from breakfast time until they return home at 2 or 3 o'clock. When to this number we add those unfortunate ones

who come to school without an adequate breakfast or with no breakfast at all, the failure to give proper emphasis and active support to nutrition on the secondary school level becomes almost criminal.

The function of the high school cafeteria is to make it possible for all pupils of the school to eat a wholesome luncheon during the

at a time, with few teachers available to supervise them.

In arranging the luncheon periods, the principal may be hampered by a dozen different kinds of handicaps: (1) the cafeteria may not be large enough to hold even half of the school enrollment; (2) the building may be so constructed that when part of the student body goes to luncheon, it disturbs that part which remains in recitation; (3) the management of the cafeteria may be out of his control and the food so poor or so costly that most children do not care to buy it; (4) there may be no place where the children can leave their books and other belongings when they go to the lunchroom, making it inconvenient for them to carry their trays or to find adequate space at the dining tables.

Each of these difficulties except No. 3 was encountered at Bulkeley High School, Hartford, Conn., when it was opened in 1926. Although the enrollment at the time was about 980, there were hardly enough tables and chairs to accommodate more than one third that number in the cafeteria. Through persistent requests, repeated year after year, the cafeteria accommodations were raised to 600. But the enrollment of the school did equally as well, for it jumped in the course of thirteen years from 980 to 1900, so that cafeteria accommodations are still less than one third of the registration.

Furthermore, it was found that the school had been constructed with only two staircases leading from the several floors to the cafeteria. Since it was impossible to send all pupils to the cafeteria at the same time, under any circumstances, it was necessary to establish two recess periods.

The session begins at Bulkeley High School at 8:30 o'clock in the morning. Recitation periods are

Typical Menu for One Day

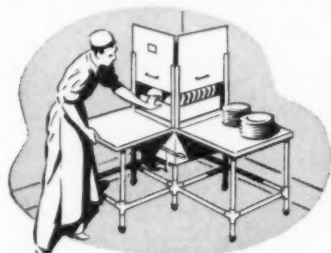
Fresh mushroom soup, bread and butter sandwich	5 cents
Pot roast, fresh vegetable, gravy, Franconia potatoes, buttered onions	10 cents
Baked Idaho potato, buttered cauliflower, shredded beets or spring salad, bread and butter sandwich and peppermint candy	10 cents
Orange and date salad with celery curls, cheese puff	10 cents
Desserts	5 cents
Cake with Holland cream icing	
Apricot timbale	
Baked custard	
Grapefruit	
Homemade oatmeal cookie	1 cent
Baking powder biscuit	2 cents

school session. For this purpose the cafeteria must meet the following demands: (1) adequate space so that all children may be able to eat sitting down; (2) reasonably priced food so that all children may be able to afford to buy school lunches; (3) cleanliness and attractiveness so that children may enjoy the room.

From the administrative angle, that part of the school organization that deals with the recess periods and the feeding of the pupils is the principal's most ticklish job. It is easy enough to administer a school when the pupils are broken up into groups of twenties and thirties and are in their classrooms under the control of their teachers but it is a different thing to have them in the cafeteria and corridors, a thousand or more

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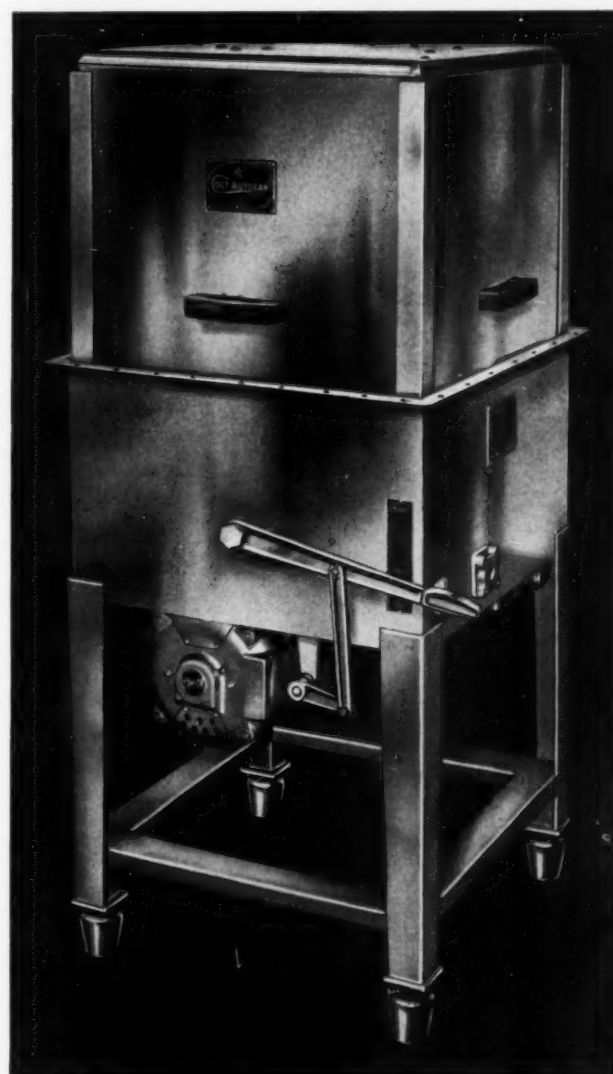
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City _____ State _____





Boys call for their luncheon bags, which are checked in booths in the cafeteria so that pupils do not have to carry them around the school.

forty-five minutes in length. The pupils are in continuous attendance from opening to closing time, which is 2 o'clock. After a little experimentation, it was found that the optimal recess period should be thirty minutes. This gives the teachers and pupils ample time in which to eat their luncheon and prevents the pupils from becoming restless.

The second recess starts fifteen minutes after the close of the first. The first recess comes at the end of the third recitation period and the second, at the end of the fourth recitation period. While the second group is at luncheon, the first is having its fourth recitation period. The fifteen minute interval between the two recess periods affords ample time in which to clear the dining room tables and to set out the dishes of food on the counter. At the end of the second recess, all pupils go into their fifth period recitations.

Because of the fact that the manual training building and the two largest study halls are located on the first floor, it so happens, fortunately, that there are just about as many pupils in recitation on the first floor as on the second and third floors combined. Therefore the schedule has been so set up that all pupils who have their fourth recitations or study hall assignments on the first floor go to the cafeteria during the first recess; while all who have their fourth period recitations and study hall assignments on the second and third floors go to the second luncheon period.

As all pupils in the school change classes at the end of the third recita-

tion period, the fact that some of them go to the cafeteria while others go to their recitations causes no disturbance. Furthermore, since the recesses are by floors, pupils have the privilege of spending their recess period partly in the cafeteria and partly on their respective floor levels. This keeps them off the floors that are in recitation and enables them to spend ten or fifteen minutes socially.

To relieve the pupils of their encumbrances, such as textbooks, shelves have been built in the corridors adjacent to the cafeteria, where they may leave their books when they go to luncheon.

It was found that in spite of the low price of food many pupils, especially boys, were in the habit of going all day without luncheon. In some cases the parents could not afford the 10 or 15 cents for luncheon. In others the youngsters would try to save the 10 or 15 cents for the movies, for club dues or whatever it might be.

In private talks with some of these pupils and their parents, the principal learned that the reason why they refused to bring sandwiches to school was that they did not like to trundle their luncheon bags about the building all morning. To leave their luncheon bags in their desks or lockers was not always convenient, because when they had their recess, the homerooms in which their desks or lockers were located were often in recitation. This made it impossible for most of them to return for their luncheon bags.

To overcome this difficulty, two booths were erected in the cafeteria

with enough shelf space to accommodate 400 luncheon bags. The spaces are numbered and provided with tags suspended from hooks. Shortly before the school doors open in the morning, two N.Y.A. helpers take charge of these booths to check in the pupils' luncheons. When the recess periods begin, these or two other N.Y.A. pupils hand out the luncheon bags on presentation of the tags. In this way, some 400 boys and girls, many of whom would not be having any luncheon at all during the entire school day, have been induced to bring sandwiches from home. In most cases, these are supplemented with milk or dessert or both, purchased in the school.

Although there are two recess periods at Bulkeley High School, it would still be impossible to accommodate the school population in the cafeteria, which has accommodations for only 600 children at a time, if it was not for the policy of "staggering" the pupils.

At the beginning of the first recess period, all those who have recitations on the first floor go directly to the dining room. These number about 600. Ten minutes later, the 300 pupils who sit in the first floor study halls go to the lunchroom and are allowed to remain there ten minutes longer than the first group. With the aid of pupil help, the cafeteria tables are cleared within five or ten minutes, and everything is made ready for the second recess period. Three minutes before the second recess period bell rings, 200 pupils come to the cafeteria from the second floor study halls and another 100 from four recitation rooms. The latter are rotated a week at a time. Twenty-four rooms are rotated in this manner.

By means of the stagger system, crowding in the cafeteria has been largely eliminated. The pupils keep coming into the lunchroom almost in a continuous stream for a period of seventy-five minutes. The service lanes, of which there are four, are cleared within ten to twelve minutes from the time the first group comes down. After that pupils may return to the service counters for such things as candy, fruit, desserts or second helpings.

As is true in most public school systems, the city provides the space, light, fuel and salary of the high

10 WEEKS TOP-COOKING SERVICE FREE EVERY YEAR

*That's what you actually get with each **VULCAN** Radial-Fin Range!*

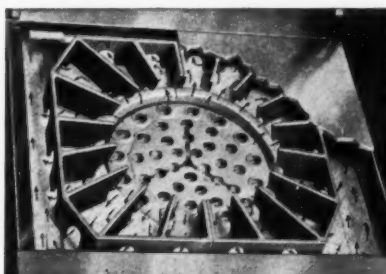
Operate with Vulcan Radial-Fin Ranges for a full year and you'll find that your top-cooking costs have been reduced, on the average, 20%. You'll have spent no more for a whole year's operation than you have been spending in 42 weeks.

That's why we can say, without any exaggeration, "10 weeks' top-cooking service free to you every year" from the minute you replace your obsolete ranges with Vulcan Radial-Fin Ranges.

STUDY THE CONSTRUCTION AND YOU'LL SEE WHY!

See the fins and ducts in the illustration? We've cut away the top to show how they'll cut away at your operating costs. They add 68% to the heat absorbing surface. They direct the flue gases radially, distribute the heat more uniformly, more widely.

They retard the flow, transfer more heat to the top — and 119 pounds of metal and 3 1/8 inches of brick hold that heat ready for the chef to tap, simply by sliding vessels to the point of greatest efficiency for any given food.



No need to turn gas up or down or shift from one range to another. From red-hot spot to moderate heat, any temperature is instantly available.

Still another function of the fins is reinforcement. They keep the tops from sagging. And the chrome-nickel-iron alloy further ensures long, hard service without replacement of tops.

BE WISE AND MODERNIZE—WITH VULCAN!

Check up! Find out what your old ranges are costing you. Are your gas bills *down* where they belong? Are the quality of your food and the speed of your service *up* where they belong?

Then find out what modern Vulcan ranges can do for you—by finding out what they *are* doing, now, for others.

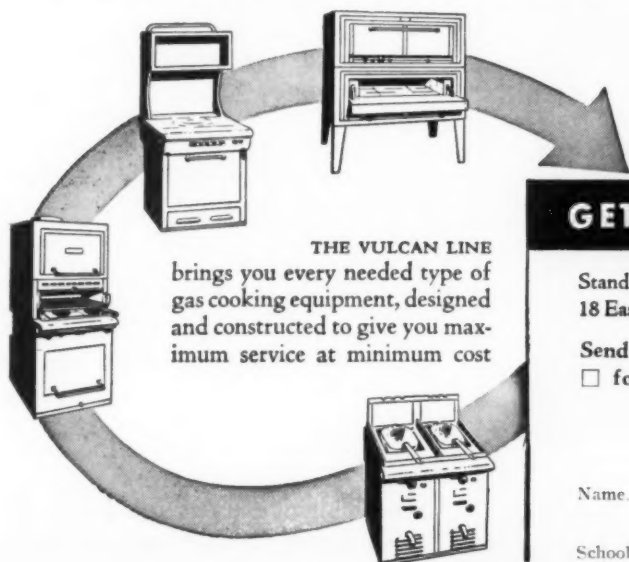
You can get the Vulcan Radial-Fin Top only on gas ranges made by

STANDARD

GAS EQUIPMENT CORPORATION

18 East 41st Street, New York

Boston; Philadelphia; Baltimore; Chicago; Aurora, Ill.; New Orleans; Los Angeles



THE VULCAN LINE brings you every needed type of gas cooking equipment, designed and constructed to give you maximum service at minimum cost

GET THE FACTS and CUT YOUR COSTS!

Standard Gas Equipment Corporation
18 East 41st Street, New York

NS-4

Send me full information about Vulcan Gas Ranges with Radial-Fin Tops
☐ for remodeling ☐ for new construction.

Number of meals served.....

Name..... Title.....

School..... Address.....

school cafeteria director. As for the rest, the cafeteria is expected to maintain itself. Even with this little help, the school cafeteria succeeds in selling food to the children almost at cost.

By reason of the stagger system all pupils have accommodations at the dining tables and are able to spend part of the recess period in the cafeteria and part on the vacant floor levels if they wish. Pupil officers, consisting of members of the Student Council and of the National Honor Society, patrol the corridors.

So much for the purpose and the mechanical setup of the school cafeteria. Now, what about directing the pupils to take advantage of the offering?

The children enrolled in a typical comprehensive urban high school come from many different levels of society, not to mention many different races. At Bulkeley, which is far more homogeneous than the average American high school, 13 nationalities are represented. Yet, all these children have to be fed American foods prepared in the American

style. This calls for instruction of a subtle kind.

It would never do to "hold forth" about such a personal matter as food in the same manner as teachers lecture about mathematics or poetry. The pupils, no less than the parents, would resent such intrusion on matters that are more or less private and personal. Indeed, parents would object to having their children sent home from school with "revolutionary" ideas about mother's cooking or father's taste for certain kinds of cheese or national dishes.

Some two years ago, the cafeteria director reported to the principal that there was a falling off in the sale of cooked food. To remedy this he suggested that she join him in a lecture campaign to stir up general interest among the pupils in wholesome diets and especially to distinguish between nutritious and non-nutritious foods.

It happens that on Monday mornings the opening hour at Bulkeley High School is given over to what is called the choir period. At that time approximately 400 pupils are engaged in group singing in the auditorium. The other 1400 to 1500 pupils remain in their homerooms. It was decided, therefore, to assemble 100 of these pupils at a time each Monday morning during the choir period and to give brief talks on such topics as the following: (1) the distribution of foods in the world; (2) the part that food has played in the migration of races and in the wars of nations; (3) the part that food plays in the building up of certain geographic groups, like the Australians, or in the dwarfing of others.

These talks were illustrated with charts and specific reference to existing conditions, of which the pupils had some knowledge through their previous reading in history and geography. This general treatment of the topic was then followed with a discussion on the 10 food essentials: calories, proteins, calcium, phosphorus, iron and the vitamins A, B, C, D and G. The foods which provide these essentials and the proportions in which they appear in the various foods were touched upon. Following this discussion by the principal, the director of the cafeteria was introduced to the pupils and she spoke about the kinds of foods served in the school cafeteria,



Dainty...
Delicious...
Digestible

... a trio of adjectives to describe a trio of justly popular desserts. Popular with all who serve many people each day—and popular with the people served, for they rest as gently upon the institutional budget as upon the patron's digestion. Pudding made of Edelweiss Instant Chocolate Dessert . . . pie of Edelweiss Butter Scotch Dessert . . . and for the lighter palate, there's nothing so good as a serving of tasty, colorful strawberry gelatine, or ONE OF THE FOURTEEN OTHER FLAVORS. For pleased patrons and greater profits, specify Edelweiss.



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Now... AGELESS CHALKBOARDS OF *Glass!*

Nucite Glass Chalkboard in colors assures a better writing surface, longer life, a new variety of uses.

NUCITE Glass Chalkboard comes in two attractive colors besides Black. These colors are Ivory and Green . . . shades specially developed to improve school lighting, to minimize glare, and be easy on students' eyes.

Nucite's superior writing surface, formed by fusing an abrasive-impregnated vitreous material to polished plate glass, never wears out. It won't

get slick or shiny with use, won't ever need refinishing. It makes thorough erasure easier. And since Nucite boards are made of glass, they are absolutely non-absorbent. They can be washed as often as desired. Chemicals, moisture, chalk binders cannot harm them. They are stain-proof and odorless.

Nucite boards lend themselves to various interesting uses in addition

to their function as chalkboards. The Ivory Nucite board makes a splendid moving picture screen. Art classes find Nucite a good "canvas" for chalk work . . . and for water color painting, too, since the boards can be washed as often as desired.

All these advantages make Nucite Glass Chalkboard well worth its slight extra cost. Send the coupon, today, for free literature giving complete information about it.

"PITTSBURGH"
stands for Quality Glass

NUCITE
GLASS CHALKBOARD IN COLORS
PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2111 Grant Building, Pittsburgh, Pa.

Please send me, without obligation, your free literature which gives the facts about Nucite Glass Chalkboard.

Name

Street

City State

their cost and their nutritive importance.

As a result of these talks, repeated to a different group of pupils each week, the sales of warm dishes at Bulkeley High School increased by 35 per cent.

Recently another method of arousing pupil interest in cooked food was used. An elaborate food exhibit, supplied as a W.P.A. project, under the auspices of the Hartford board of health, was displayed in the school lobby, and pupils were invited by means of office notices to examine the exhibit. Biology teachers were requested to speak about it in their classes. During the week that this

exhibit was on display, sound motion pictures, dealing with the raising and preparation of various kinds of foods, were shown in the auditorium.

The proper feeding of high school pupils is not only of great benefit to them directly but it also becomes a valuable aid to the teacher and the principal. As a rule, it is the hungry pupil who becomes irritable in the classroom, as the hours drag along. Hunger, as is well known, causes the mind to wander, interferes with concentration of attention and makes the pupil sulky and resentful. If he experiences hunger too often in school, the association of unpleasant-

ness between that feeling and school attendance becomes fixed in his mind. By the well-known psychological principle, the thought of one brings up the idea of the other, with the result that such a pupil is more likely to be truant than the one who is well fed.

Just as the wise general will see to it that his army is well fed before starting the soldiers on a long march or sending them into battle, so the high school principal and his school board must resort to every possible means to see to it that the pupils are well nourished as a prerequisite for their regular attendance and successful performance in school.

Food Cost Tables—Beans

GRACE S.
SAUNDERS

BEANS—Fresh Green Snap, Flat

VARIETIES: NORTH CAROLINA, SOUTHERN FRESH

COSTS, AS PURCHASED										
28 lb. hamper.....	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25	\$2.50	\$2.75	\$3.00	\$3.25	\$3.50
1 lb.....	.0046	.0536	.0625	.0714	.0804	.0893	.0982	.1071	.1161	.125
1 oz.....	.0028	.0033	.0039	.0045	.005	.0056	.0061	.0067	.0073	.0078
2 oz.....	.0056	.0067	.0078	.0089	.01	.0112	.0123	.0134	.0145	.0156

COSTS, EDIBLE PORTION										
1 lb.....	.0461	.0552	.0645	.0736	.0829	.0922	.1013	.1106	.1197	.129
1 oz.....	.0029	.0035	.004	.0046	.0052	.0058	.0063	.0069	.0075	.0081
2 oz.....	.0058	.0069	.0081	.0092	.0104	.0115	.0127	.0138	.015	.0161
3 oz.....	.0086	.0104	.0121	.0138	.0155	.0173	.019	.0207	.0224	.0242
4 oz.....	.0115	.0138	.0161	.0184	.0207	.023	.0253	.0276	.03	.0322

It is more accurate to buy by weight. The range of prices covers Southern fresh, only. Labor cost is involved but has not been included in above figures. One pound as purchased yields 15.5 ounces of edible portion.

BEANS—Canned, Combination Cuts

VARIETY: REFUGEE

COSTS														
No. 10, 1 doz. cans.....	\$4.25	\$4.50	\$4.75	\$5.00	\$5.25	\$5.50	\$5.75	\$6.00	\$6.25	\$6.50	\$6.75	\$7.00	\$7.25	\$7.50
No. 10 can.....	.3541	.375	.3958	.4166	.4375	.4583	.4792	.50	.5208	.5417	.5625	.5833	.6042	.625
1 lb.*.....	.0899	.0932	.1005	.1056	.1110	.1164	.1216	.1269	.1322	.1374	.1427	.148	.1533	.1587
1 oz.*.....	.0056	.0059	.0062	.0066	.0069	.0072	.0076	.0079	.0083	.0086	.0089	.0093	.0096	.0099
2 oz.*.....	.0124	.0118	.0124	.0132	.0138	.0144	.0152	.0159	.0165	.0172	.0178	.0185	.0192	.0198
3 oz.*.....	.0168	.0177	.0186	.0198	.0207	.0216	.0228	.0238	.0248	.0258	.0268	.0278	.0287	.0298
4 oz.*.....	.0248	.0236	.0248	.0264	.0276	.0288	.0304	.0317	.033	.0344	.0357	.037	.0383	.0397

*Drained beans are generally served, consequently these costs are figured on the drained weight basis. A No. 10 can contains 102 ounces net weight which is equal to 63 ounces drained weight.

BEANS—Frosted, Green, 2 inch Cut

VARIETIES: KENTUCKY WONDERS, BOUNTIFUL, REFUGEE

COSTS, AS PURCHASED												
2½ lb.....	\$0.48	\$0.49	\$0.50	\$0.51	\$0.52	\$0.53	\$0.54	\$0.55	\$0.56	\$0.57	\$0.58	\$0.59
1 lb.....	.192	.196	.20	.204	.208	.212	.216	.22	.224	.228	.232	.236
1 oz.....	.012	.0123	.0125	.0128	.013	.0133	.0135	.0138	.014	.0143	.0145	.0148
2 oz.....	.024	.0245	.025	.0255	.026	.0265	.027	.0275	.028	.0285	.029	.0295
3 oz.....	.036	.0368	.0375	.0385	.039	.0398	.0405	.0413	.042	.0438	.0435	.0443
4 oz.....	.048	.049	.05	.051	.052	.053	.054	.055	.056	.057	.058	.059

Frosted beans are available in cases of two sizes: one containing eight 40 ounce packages and the other containing ten 80 ounce packages.

These tables furnish a simple method of comparing the cost per serving of foods in various forms. It was not possible to include labor costs involved in preparing some of the foods, hence, the tables should be corrected accordingly. For a more detailed explanation of the tables, see page 76 of the March issue of *The Nation's Schools*.

Where, Oh Where Is the Little Red Schoolhouse?



ALL SIZES.
ALL TYPES OF BODIES.

International Harvester salutes the modern community school!

The medium is a page advertisement on International School Buses soon to appear in seven national weekly magazines. This page, in magazines with a combined circulation of nearly 10 million, will tell *why International School Buses mean safer and more economical transportation for today's bigger and better educational program.*

The advertisement is headed "Where, Oh Where Is the Little Red Schoolhouse?" Shown above in black and white is the illustration that will appear in brilliant full color in the *Saturday Evening Post* June 8, *Collier's* June 1, and *Life*

June 17. Black and white pages will run in *Time* May 27, *Newsweek* June 10, *Business Week* June 8, and *United States News* May 24.

International Harvester is glad to have the opportunity to put this vital subject before millions of readers. When the discussion of school buses comes up, ask the International Branch or Dealer to demonstrate these buses—the *safest and most economical school transportation you can buy.*

INTERNATIONAL HARVESTER COMPANY

(Incorporated)

180 North Michigan Avenue

Chicago, Illinois

INTERNATIONAL SCHOOL BUSES

CONTINENTAL Chain Link FENCE



SCHOOLS . . . PLAYGROUNDS
ATHLETIC FIELDS
STADIUMS . . . TENNIS COURTS
SWIMMING POOLS



78

News in Review

Growth of Junior Colleges

Enrollment in junior colleges has doubled in the last seven years, according to the 1940 junior college directory just issued by the American Association of Junior Colleges.

Enrollment has increased from 155,588 to 196,510 in the last year. This is an increase of 26.4 per cent. There are now 575 junior colleges, as compared with 556 reported a year ago.

California leads the nation with 64 junior colleges enrolling 73,669 students. The largest junior college is the San Bernardino Valley Junior College in California, which has 8317 students. There are 33 junior colleges in the country with enrollments of more than 1000. The size that is most general is between 100 and 200, in which group there are 153. There are 212 junior colleges with enrollments between 200 and 1000. The average for all is 349.

INSTRUCTION

Accredit C.C.C. Subjects

C.C.C. enrollees now may continue their studies while in camp and receive credit toward elementary or high school diplomas, Commissioner of Education John W. Studebaker has announced. Accrediting of C.C.C. subjects has been brought about through cooperation between the C.C.C. and state departments of education.

The average enrollee, when he enters the camp, has never completed the eighth grade. Few enrollees have been graduated from high school and seldom have they had any vocational training. The C.C.C. has taken on a job of elementary school teaching. Out of 300,000 enrollees last year, 8500 boys when they entered camp were illiterate.

Curriculum in camps is practical and is built around the interests and needs of individual enrollees. Courses offered vary according to the interests and needs in each camp. Subjects offered in many camps are: typewriting, blueprint reading, spelling, language usage, wood-working, truck driving, safety, photography, arithmetic and citizenship.

Shortage of Rural Teachers

Federal agencies have drained from universities and colleges so many scholars qualified to teach rural social subjects that an acute shortage of future personnel is threatened, according to Dr. George F. Zook, president of the American Council on Education, who re-

cently announced an "exploratory study" to search out competent new personnel.

The study is in charge of a special committee headed by Dr. E. G. Nourse, director of the Institute of Economics of the Brookings Institution, and has as its immediate purpose planning ways to bring relief particularly to schools in the South, where the situation is described as critical. Prof. T. W. Schultz of Iowa State College has been appointed director of the study, a four months' project, which will be financed by a grant of the General Education Board.

"There is no blinking at the fact that this constitutes a problem of national importance," Doctor Zook said. "The explanation is obvious. The extraordinary increase in federal action programs serving agriculture, such as the A.A.A., F.S.A., S.C.S., R.E.A., to list only a few, together with the expanded activity of the bureau of agricultural economics and similar federal and state research agencies, has created a demand for trained personnel that exceeds the supply."

Vocational Instruction

The Stair Technical High School at Knoxville, Tenn., is offering many short, intensive courses for waitresses, city janitors, city firemen, electricians, carpenters and painters. Surveys were made of local vocational needs in view of the rapid development of the city under the stimulus of the T.V.A.

MEETINGS

Stonehouse Heads Exhibitors

At the annual meeting of the Associated Exhibitors held during the St. Louis convention of the American Association of School Administrators, A. M. Stonehouse of the Royal Typewriter Company was elected president, H. C. Grubbs of Erpi Classroom Films was chosen vice president and Paul L. Crabtree of Caproni Galleries was reelected secretary-treasurer.

The three new directors are Elliott Spratt of Hillyard Chemical Company, W. A. Milliken Jr. of Binney & Smith Company and John J. Krill of the Bruce Publishing Company. A. A. Newbury of the Macmillan Company was chosen by the board to fill the vacancy created by the resignation of F. B. Avery.

Fifteen thousand persons witnessed the presentation of the 1940 American Education Award to Dr. William Lyon Phelps by James A. Campbell, president.

To Meet in Indianapolis

The thirty-second convention of the Special Libraries Association will be held in Indianapolis, June 3 to 6. This group is a national organization drawn from institutions or firms maintaining special libraries or research departments.

School Administrators' Conference

The eleventh annual School Administrators' Conference at George Peabody College for Teachers, Nashville, Tenn., will be held June 18 to 20.

The program will take the form of a school administration clinic. School executives in elementary and secondary schools are invited to mail immediately to Dennis H. Cooke or Ray L. Hamon a brief statement of several of their administrative problems on which they would like help at this clinic. These problems will be studied and discussed at the clinic by authorities and by students of school administration.

There will be a large exhibit of school equipment, textbooks and supplies. No fee is charged for attending or for participating in this clinic.

Child Study Classes

Edna Dean Baker, National College of Education, Evanston, Ill., assisted by Ruth Kearns, Winnetka public schools, Winnetka, Ill., will conduct study classes in "Broadening Educational Opportunities in Your School" at the forty-seventh annual convention of the Association for Childhood Education in Milwaukee, April 29 to May 3.

Consumer Education Conference

The second national conference on Consumer Education will be held from April 1 to 3 at Stephens College, Columbia, Mo.

Private School Section

There will be a meeting of the mathematics section of the Private Schools Association of the central states at the Milwaukee Country Day School on Saturday, May 4, beginning at 10 a.m.

ADMINISTRATION

Governor Arrested for Contempt

While Gov. E. D. Rivers of Georgia was speaking before a convention of the Georgia Education Association at Macon, Ga., on March 15, he was arrested on a federal civil contempt citation for invoking martial law in an effort to override an opponent.

The arrest was made on the stage of the Macon auditorium at the close of the meeting, at which the governor and his wife, former school teachers, had been presented with life memberships.

Issuance of the contempt citation climaxed a bitter legal controversy over

When it's time . . . to clean those
soiled painted walls—investigate

MIDLAND
WALL-GLO

Synthetic Detergent

CLEANS QUICKLY—NO DISCOLORATION—WILL NOT
HARM PAINT—WRITE FOR MORE INFORMATION

MIDLAND
MAINTENANCE PRODUCTS
DUBUQUE
IOWA

Enc. applied for
Midland Chemical Labs,
Inc.
Dubuque, Iowa
Please send me further
information on Wall-
Glo.

NAME

Title

Street

City

State

the governor's ouster of the state highway chairman. The governor has refused to obey orders of both state and federal courts that the highway chief be permitted to return to his post.

After having the highway chairman forcibly ejected from his offices, the governor stationed national guardsmen at the doors.

More Jobs Than Applicants!

Hitting a new high in placements, the Woodbury College job bureau in Los Angeles found positions for 2297 graduates and students during 1939, according to Mrs. Louise Ware, coordinator.

The Woodbury job bureau received 4284 calls from employers during the year, nearly 2000 more than it was able to fill from the available list of students seeking work.

Most of these calls were for students having specialized training in business.

AWARDS

Emblem of Low Scholarship

At the same time at which the Joseph H. McDaniels scholarship cup is awarded to the group at Hobart College, Geneva, N. Y., with the highest general

average for the past semester, another significant award is also presented. The "Cuspi Cup," emblematic of low scholarship, is awarded concurrently by O. O. MacInmerl, fictitious columnist of the *Hobart Herald*.

The "Cuspi Cup" is an old brass spittoon, which the recipients must display on the mantel of their house and keep constantly polished. It is engraved with the "winner's" name and is inscribed with the motto "*Verbum Sat Sapienti*," a word to the wise is sufficient. The cup has proved to be a good inspiration to the improvement of scholarship on the campus.

Solicits Teacher Manuscripts

For true, book length "personal histories" reflecting significant aspects of American life, the Houghton Mifflin Company is offering prizes of \$250.00 to authors. The publishers are urging the participation of teachers and educators in this project.

A prize winning manuscript may be the life story of a man or woman in either this or an earlier generation. The only criterion is that it should definitely contribute to an understanding of our own country by presenting a true picture of one American's life and work.

School folk who are interested in competing are urged to write for information and an application form to the Life in America Editor, Houghton Mifflin Company, 2 Park Street, Boston.



NO TRAFFIC LANES NO WORN SPOTS

when classroom floors are finished with Seal-O-San

WHEREVER you find traffic-scarred floors, you also find a surface floor-finish that has failed. Under the abuse of traffic, the brittle, surface-finish cracks and breaks, exposing the wood cells beneath. Continuous pounding and scuffing crushes these empty cells . . . starts a trail of worn spots across the floor.

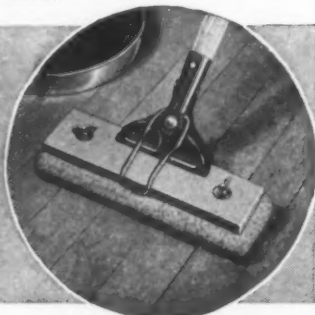
A Penetrating Seal-O-San finish becomes part of the wood. As the liquid penetrates, it fills the empty cells, then hardens

to form a protective seal against dirt, moisture, or wear. Because this seal extends below the surface of a Seal-O-San floor, you never see traffic lanes.

Remember that worn, unsightly floors are a black mark against the man responsible for their care. So investigate Penetrating Seal-O-San today. Its outstanding qualities of beauty, economy, and durability will prove to be exactly what you need for your school floors.

The HUNTINGTON LABORATORIES Inc.
DENVER HUNTINGTON, INDIANA TORONTO

**P-E-N-E-T-R-A-T-I-N-G
SEAL-O-SAN**
PERFECT SEAL AND FINISH FOR WOOD FLOORS



Films in Review

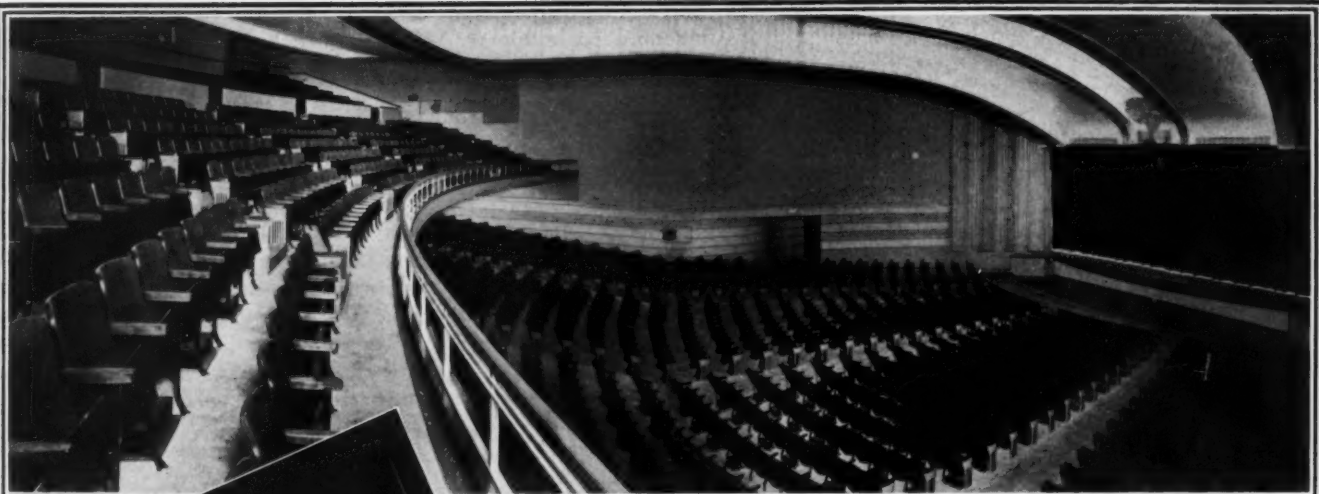
PLANT POWER. 16 or 35 mm., silent or sound. 1 reel. UFA Films, Inc., 729 Seventh Avenue, New York City.

Rating: age level, junior high school and upward; quality of photography, excellent; selection of scenes, good; sound, preferable to silent version.

This film shows dramatically the force exerted by growing plants by use of time lapse photography and some photomicrographs. It further shows the structural strength of stems that have withstood strong winds and the struggle of a parasitic plant in conquering its host.

First scenes show a sunflower opening. Then come views of several plants swaying in the wind, together with sections of their stems. An experiment effectively shows how a bast fiber breaks only after continued pressure while a copper wire of equal tensile strength breaks immediately.

This is a valuable contribution to the learning experiences of pupils from the junior high school level on up. The story of growth as told is fascinating in itself. It also stimulates investigation of physiologic processes, of structure of



● E. W. Morrison, famed Seattle architect, designed and executed this beautiful modern school auditorium at Everett, Washington.

● 2,213 Heywood-Wakefield chairs were installed. The auditorium is used for civic gatherings as well as for school purposes.

If you have a school seating problem, may we help you to solve it correctly and economically? Whether you are interested in a single classroom or an entire school, we shall be pleased to offer assistance without cost or obligation.

HEYWOOD-WAKEFIELD
Established 1826

**GARDNER
MASS.**

PPROMPT care is important in preventing infected wounds. Even minor wounds may become infected when antiseptic treatment is delayed. Children and adults report injuries promptly when Mercurochrome is used, because treatment is not painful.

Mercurochrome, H.W.&D.
(Dibrom-oxymercuri-fluorescein-sodium)

is non-irritating and exerts bactericidal and bacteriostatic action in wounds. Be prepared with Mercurochrome for the first aid care of all minor wounds and abrasions. In more serious cases, consult a physician.

HYNSON, WESTCOTT & DUNNING, INC.
Baltimore, Maryland



After a thorough investigation of the evidence for and against at the close of the last period of acceptance, the Council on Pharmacy and Chemistry of the American Medical Association again reaccepted (1935)
MERCUROCHROME, H. W. & D.
(Dibrom-oxymercuri-fluorescein-sodium)

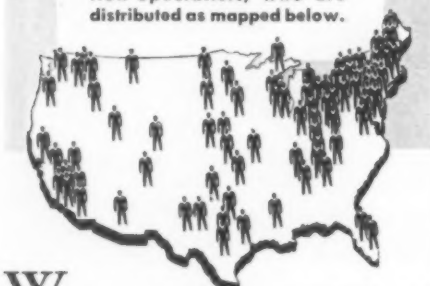
*Plus Service
Goes with the
Finest Projectors!*

Filmosound "Academy," one of the complete Bell & Howell line of sound and silent film projectors



THESE MEN CAN HELP YOU

Here are a few of Bell & Howell's 125 Visual Education Specialists, who are distributed as mapped below.



WHEN your school chooses a Bell & Howell Projector, you get the finest cinemachinery that master craftsmen can create. Yet these superior projectors cost little, if any, more originally, and cost less per projection year. Years of use have proved their longevity, their low maintenance cost, their ever-readiness for use.

You'll benefit from Bell & Howell's lasting concern about the service your projector gives. For our interest in schools goes beyond the sale of a projector . . . includes renting and selling films from a constantly growing library of thousands of subjects . . . includes providing cameras which schools use for making their own films . . . includes a here-to-stay, full-line manufacturer's desire to merit your future patronage.

This enduring interest in school buyers gave rise to the Bell & Howell staff of Visual Education Specialists, one of whom is near you. He is fully informed about motion picture equipment, about school films, and about the application of motion pictures to teaching needs. Mail the coupon today to secure his help—no obligation. Bell & Howell Company, Chicago; New York; Hollywood; London. Established 1907.

USE CONVENIENT COUPON

BELL & HOWELL COMPANY
1855 Larchmont Ave., Chicago, Ill.
Please have your nearest Visual Education Specialist call to help me with this problem:

Include details on projectors for () sound film; () silent film.

Send free 1940 catalog of () sound films; () 16 mm. silent films; () Bray Educational Films.

Name.....

School.....

Address.....

City.....State.....NS 4-40

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BELL & HOWELL

plants and of interrelations that exist among them. It should be highly recommended for use in classes studying plants, physiologic processes and ecology.

Scenes are well chosen and executed. A known scale when viewing some of the close views highly magnified would be helpful. The title does not clearly indicate the nature of the film nor are the captions on the silent version sufficient. Sound should help greatly in understanding many of the scenes.—Reviewed by a committee comprised of H. EMMETT BROWN, ROSE WYLER, F. T. HOWARD, N. ELDRED BINGHAM and HUBERT M. EVANS, all of Teachers College, Columbia University; ALTON I. LOCKHART of the Horace Mann School, and HENRY ALDERFER of the Dalton School.

VISUAL EDUCATION

Midwest Forum

The second Midwest Forum on Visual Teaching Aids will convene at the Morrison Hotel in Chicago, April 5 and 6.

William C. Reavis of the department of education, University of Chicago, is the general chairman of the forum and Ernest C. Waggoner, director, science and visual education, Elgin public schools, Elgin, Ill., is chairman of the program committee.

The forum will open with a general session at 10 a.m. Friday, April 5, at which Chairman Reavis will discuss the purpose of the second forum and J. E. Hansen, chief, bureau of visual instruction, University of Wisconsin, will speak on the subject, "Where Are We Going in Visual Education?"

The first meeting of the classroom clinics will convene at 10:30 a.m. There will be an elementary school clinic of which Harry O. Gillet, principal, University Elementary School, University of Chicago, is chairman, and a high school-college clinic of which Noble J. Puffer, superintendent of Cook County schools, is chairman. These sessions will run concurrently.

A nature study film will be shown at the elementary school clinic and the classroom method demonstrated by Dorothy Burns, director of visual education, Cicero, Ill., with a class of fifth grade pupils. Dr. Walter Bartky, professor of astronomy, University of Chicago, will conduct a film demonstration on an astronomy unit at the high school-college clinic.

At noon there will be a luncheon and round table for directors of visual education. Topics for discussion and the speakers will include: "The Budget and the Visual Program," Lewis Petersen, University of Illinois, and Dolph Lain, Moline, Ill., introduced by J. E. Hansen; "Problems in Visual Instruction Con-

fronting the Schools," Justus Rising, Purdue University, and Rodger Stutz, Aurora, Ill., introduced by Charles A. Fisher, University of Michigan; "Advantages and Disadvantages of University, County and Sectional Libraries of Visual Aids," Lee Cochran, University of Iowa; Robbert Kissack, University of Minnesota; C. G. Hadley, county superintendent of schools, Sioux City, Iowa, introduced by B. A. Auginbaugh, Ohio State University.

The second session of classroom clinics will convene concurrently at 2 p.m. At the elementary school clinic there will be a demonstration of the use of slides in classroom teaching by J. B. MacHarg of the Eastman Kodak Company, followed by a demonstration of the use of lantern slides in teaching geography. Ruth Weaver Mikesell of DePaul University will be the discussion leader and Laura Watkins of Cicero, Ill., will demonstrate with a class in group training for elementary teaching.

At the high school-college clinic, Dr. Irving J. Lee, Northwestern University school of speech, will conduct a Town Hall type of meeting built around a film. Martin Lowry of the Parker Elementary School, Chicago, will give a class demonstration with a group from the Parker Elementary School, Chicago. There will be a showing of American lantern slides by the Yale University Press.

Saturday morning at the elementary school division, Arch A. Mercey, assistant director, U. S. Film Service, will demonstrate films prepared by that service and discuss its functions and activities. W. R. Cleveland, director of visual instruction, Downers Grove, Ill., will conduct a forum on visual aids in industrial arts courses at the high school-college clinic.

At the general session, which closes the meeting, James P. Mitchell, a member of the commission on human relations of the P.E.A., will conduct a demonstration with a social science class of Elgin High School, Elgin, Ill.

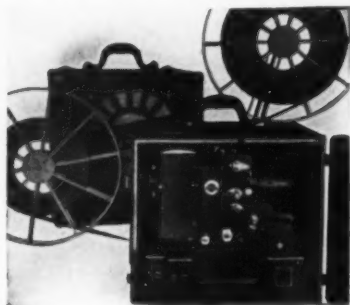
Displays of the newest type of visual education equipment will be shown at the forum.

Movie Appreciation

For one year the high school at Knoxville, Tenn., has conducted a successful movie study unit in cooperation with a local theater. On the first Saturday morning of every month pictures of high educational value are brought back, such as "Les Miserables," "As You Like It," "David Copperfield" and "The Last of the Mohicans." Study guides furnished by producers are distributed by the theater manager to the schools. The price of 10 cents covers the cost of each study guide and of one admittance to the theater. Credit is given in English.

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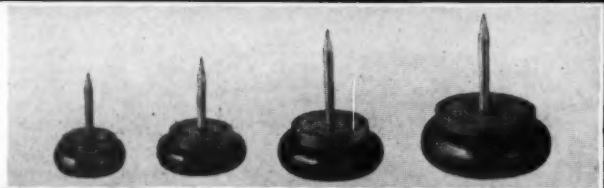


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On the Air During April

The following programs of particular interest to school people are arranged by the Columbia Broadcasting System and the National Broadcasting Company. All programs are listed in Eastern Standard Time. Watch listings for your local outlets.

Daily

12:30-1:15 p.m.—National Farm and Home Hour (NBC Blue).¹

Sunday

10:30 a.m.—March of Games, children's quiz game program, produced and directed by Nila Mack (CBS).

11:30 a.m.-11:50 a.m.—Music and American Youth (NBC Red).

12:30-1:00 p.m.—On Your Job, vocational guidance program (NBC Red).

1:00-1:15 p.m.—Pilgrimage in Poetry, broadcasts from homes of famous American poets (NBC Blue).

April 7—Francis Bret Harte, San Francisco.

April 14—Harriet Monroe, Chicago.

April 21—Edwin Arlington Robinson, Gardiner, Me.

April 28—Ralph Waldo Emerson, Concord, Mass.

May 5—Amy Lowell, Brookline, Mass.

May 12—William Cullen Bryant, Roslyn, L. I.

May 19—Emily Dickinson, Amherst, Mass.

May 26—John Howard Payne, Easthampton, L. I.

2:00-3:00 p.m.—Great Plays (NBC Blue).

April 7—The Playboy of the Western World, Synge.

April 14—Strife, Galsworthy.

April 21—Liliom, Molnar.

April 28—The Return of Peter Grimm, Belasco.

May 5—Winterset, Anderson.

2:00-2:30 p.m.—Democracy in Action, a series of programs designed to show the people of the United States how their federal government operates. Produced in cooperation with the U. S. Office of Education (CBS).

2:30-3:00 p.m.—University of Chicago Round Table (NBC Red).

3:00 p.m.—New York Philharmonic Symphony, John Barbirolli, conducting (CBS).

4:30-5:00 p.m.—The World Is Yours, auspices of Smithsonian Institution (NBC Red).

Monday

9:15 a.m.—American School of the Air. Frontiers of Democracy, produced in cooperation with the Progressive Education Association (CBS).²

2:00-2:30 p.m.—Adventure in Reading. Dramatizations of books and lives of famous authors, showing background of their works, by Helen Walpole (NBC Blue).

7:15-7:30 p.m.—Youth in the Toils, a dramatic series to illustrate the problem of youth in crime presented by the American Law Institute (NBC Blue).

Tuesday

9:15 a.m.—American School of the Air. Folk Music of America, produced in cooperation with the Archives of American Folk Songs of the Library of Congress, the Music Education Conference and the National Education Association (CBS).³

2:00-2:30 p.m.—Gallant American Women, dramatizations depicting the important part women have played and are playing in the activities of American life; produced in cooperation with the U. S. Office of Education (NBC Blue).

4:15 p.m.—Of Men and Books, reviews of current books and discussions of contemporary authors by Prof. John T. Frederick of Northwestern University (CBS).

9:00 p.m.—Cavalcade of America (NBC Blue).

10:15 p.m.—Americans at Work (CBS).

Wednesday

9:15 a.m.—American School of the Air. New Horizons, a chronological history of the lives of explorers and pioneers (CBS).⁴

2:00-2:15 p.m.—Music for Young Listeners (NBC Blue).

4:15 p.m.—Highways to Health, medical talks for the layman, arranged by the New York Academy of Medicine (CBS).

10:30-11:00 p.m.—Adventures in Photography, amateur photography program (NBC Blue).

Thursday

9:15 a.m.—American School of the Air. Tales From Far and Near, presenting a selection of children's books of high literary quality (CBS).⁵

2:00-2:30 p.m.—How Do You Know? Dramatizations based on exhibits at Field Museum of Natural History (NBC Blue).

4:15 p.m.—Adventures in Science. Interviews with prominent scientists by Watson Davis, director, Science Service (CBS).

4:30-4:55 p.m.—Medicine in the News, sponsored by the American Medical Association (NBC Blue).

8:00 p.m.—Musical Americana, with Deems Taylor and Raymond Paige (NBC Blue).

9:00-9:30 p.m.—Rochester Philharmonic Orchestra (NBC Blue).

9:30-10:30 p.m.—America's Town Meeting of the Air, George V. Denny, moderator (NBC Blue).

Friday

9:15 a.m.—American School of the Air. This Living World, history and current events broadcasts consisting of dramatizations and forums presented at various New York City high schools, with the pupils participating in the actual broadcasting (CBS).⁶

1:45-2:00 p.m.—General Federation of Women's Clubs, consumers' program (NBC Red).

2:00-3:00 p.m.—NBC Music Appreciation Hour, Dr. Walter Damrosch, conductor and commentator (NBC Blue).⁷

4:15 p.m.—Men Behind the Stars, legends of the constellations dramatized, Prof. William H. Barton Jr., executive curator, Hayden Planetarium, narrator (CBS).

7:30-8:00 p.m.—Yesterday's Children, series on well-known children's books (NBC Blue).

10:30-10:45 p.m.—Story Behind the Headlines, as told by Cesar Saerchinger. Broadcast in cooperation with the American Historical Association (NBC Red).

Saturday

10:45-11:00 a.m.—The Child Grows Up, talks by Katherine Lenroot, head of Children's Bureau, U. S. Department of Labor (NBC Blue).

12:00 Noon—Milestones in the History of Music, presented by the Eastman School of Music under the direction of Dr. Howard Hanson (NBC Red).

12:00-12:25 p.m.—American Education Forum, current series devoted to outstanding experimental colleges in the field of general education with Dr. Grayson Kefauver of Stanford University (NBC Blue).

12:30-1:00 p.m.—Nila Mack's Let's Pretend, dramatic adaptations of fairy tales and original fantasies by the CBS director of children's programs. Roles enacted by cast of junior stock company of the air (CBS).

5:00-5:30 p.m.—The Human Adventure, dramatization of the progress of university scientific research presented by the University of Chicago (CBS).

7:00 p.m.—People's Platform, round table discussion of social, economic and political problems, Lyman Bryson, chairman (CBS).

7:30-8:00 p.m.—Art for Your Sake, dramatization of the lives and works of great painters by Dr. Bernard Myers, cooperation National Art Society (NBC Red).

10:00-11:30 p.m.—NBC Symphony Orchestra, Arturo Toscanini, conductor (NBC Blue).⁸

¹Except Sunday.

²The American School of the Air program will be heard in the Eastern Standard Time Zone only at 9:15 a.m.; in the Central Standard Time Zone at 2:30 p.m.; in the Mountain Standard Time Zone at 1:30 p.m., and in the Pacific Standard Time Zone at times that can be learned from the various local stations.

³NBC Music Appreciation Hour will be heard in the Chicago area over WCFL on Tuesdays from 2:00 to 3:00 p.m. (C.S.T.).

⁴The NBS Symphony under the direction of Arturo Toscanini will be heard in Chicago from 9:00 to 10:30 p.m. (C.S.T.) over WCFL.

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RADIO

Radio Conserves Vision

Broadcasting as a method of educating school children having defective vision is advocated by Olive S. Peck, supervisor of Braille and sight-saving classes in Cleveland public schools, in a report on "The Radio in Sight-Saving Classes," published by the National Society for the Prevention of Blindness.

The effectiveness of this method has been demonstrated, according to Miss Peck, by the successful use of radio lessons, which are heard regularly by 65,000 children in Cleveland elementary schools. The greatest benefit of this plan, she believes, is the daily "eye rest period" which it affords.

"One fine development of the use of broadcasting is an increased interest in speech. Tests show that many speech defects are the result of auditory defects."

Granted Radio Permit

The third institution to take advantage of the 25 amplitude modulated channels set aside by the Federal Communications Commission for noncommercial educational broadcasting purposes is the University of Kentucky. The others availing themselves of these frequencies are the Cleveland and New York City boards of education.

The University of Kentucky will erect a radio station in Lee County in the Kentucky mountains. It will be an experiment, as ultra high frequency broadcasting has never been tried before in mountain topography. The transmitter will be furnished by station WHAS, Louisville.

The Lee County board of education will furnish the operating personnel for the station and the university will furnish the battery of receiving sets, which have been developed at the university

during the last eighteen months. These will be installed in 50 or 60 mountain schools in Lee County.

According to the present plan, there will be two hour, Monday through Friday programs, starting at noon, broadcast directly to the schools of the county. The programs will be patterned to appeal to adults as well.

Installs Sound Equipment

An installation of sound equipment has just been completed at the new half million dollar high school at Fairfield, Iowa. A desk unit in the principal's office is connected to 37 classroom speak-

ers, one music room high fidelity floor cabinet speaker, two auditorium speakers, four gymnasium speakers and to three large weatherproof speakers on the athletic field. Two programs may be broadcast simultaneously and two way communication may be carried on with any room in the building. The equipment connects to a sound moving picture machine in the auditorium where sound pictures are reproduced over the auditorium speakers.

Air School of the Americas

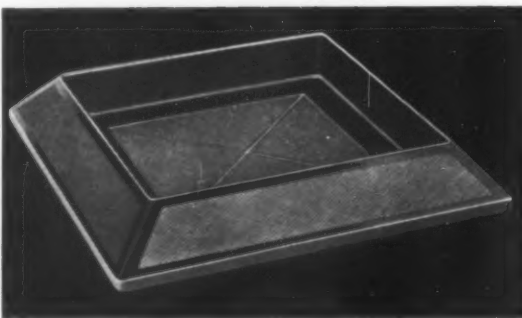
Launching of an international radio education project, a School of the Air

AMERICAN SCHOOL EQUIPMENT



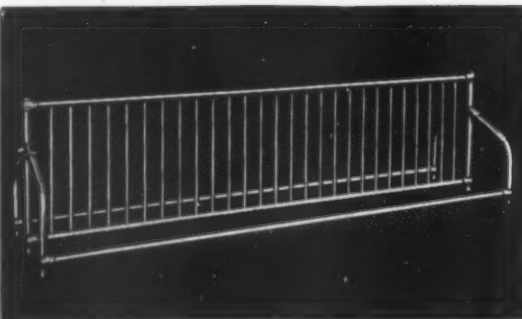
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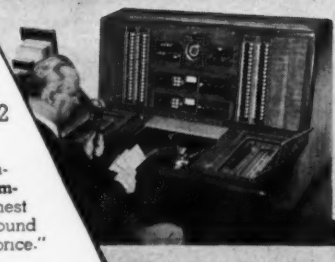
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Coming Meetings

April 3-5—Inland Empire Education Association, Spokane, Wash.
 April 17-20—Kentucky Education Association, Louisville.
 April 20—Massachusetts Teachers Federation, annual meeting of delegates, Boston.
 April 29-May 3—Association for Childhood Education, Milwaukee.
 April 24-27—American Association for Health, Physical Education and Recreation, Chicago.
 May 3-4—American Council on Education, Washington, D. C.
 May 10-18—Eighth American Scientific Congress, Washington, D. C.
 June 3-6—Special Libraries Association, Indianapolis.
 June 30-July 4—National Education Association, Milwaukee.
 Oct. 10-12—Utah Education Association, Salt Lake City.
 Oct. 17-19—Wyoming Education Association, Casper.
 Oct. 23-25—North Dakota Education Association, Grand Forks.
 Oct. 24-25—Minnesota Education Association, St. Paul.
 Oct. 24-26—Colorado Education Association, Denver, Pueblo and Grand Junction.
 Nov. 1-2—Kansas State Teachers Association, Topeka, Salina, Hays, Garden City, Wichita and Parsons.
 Nov. 6-9—Missouri State Teachers Association, Kansas City.
 Nov. 6-8—West Virginia State Education Association, Huntington.
 Nov. 7-8—Arkansas Education Association, Little Rock.
 Nov. 7-9—Iowa State Teachers Association, Des Moines.
 Nov. 7-9—Arizona Education Association, Tucson.
 Nov. 8-11—New Jersey State Teachers Association.
 Nov. 15-16—Idaho Education Association, Boise.
 Nov. 21-23—Texas State Teachers Association, Fort Worth.
 Nov. 24-27—South Dakota Education Association, Aberdeen.
 Nov. 25-26—House of Delegates, New York State Teachers Association, Syracuse.

of the Americas, was announced by Sterling Fisher, C.B.S. director of education, at the St. Louis meeting of the A.A.S.A.

The new project is to begin functioning with the start of the new school year next autumn. It will be formed by extending Columbia's "American School of the Air" to Canada and to all of the 20 Latin American republics that accept the invitation to participate. Acceptances already have been received from Canada, Mexico, Brazil and the Dominican Republic.

PUBLICATIONS

Pan American Publications

Pan American Day in 1940, April 14, will mark the fiftieth anniversary of the founding of the Pan American Union. Publications containing suggestions for Pan American Day programs in the schools may be obtained without cost from the Pan American Union, Washington, D. C.

Distributes Dewey Lecture

The National Self Government Committee has announced that it is distributing the eightieth birthday speech of John Dewey, "Creative Democracy,

the Task Before Us," to more than 5000 high school and college teachers throughout the country. Copies of the speech may be obtained without cost by writing to the committee at 80 Broadway, New York City. Doctor Dewey long has been a member of the committee and interested in its efforts to have the schools develop the alert citizens needed in a democracy.

Visual Aids Manual

A reference book of exhibits, charts, graphs, maps and pictures available from various agencies and useful in high school and college teaching has been

compiled by Dr. Lili Heimers, director of visual aids, New Jersey State Teachers College, Upper Montclair. This list is primarily intended for students of the college and for public school librarians in New Jersey, but others may obtain the book at a minimum charge from the college.

Curriculum Study Bulletins

The curriculum laboratory of the University of Oregon will issue, from time to time as materials become available, a series of study aids for teachers and students interested in curriculum problems. These bulletins will be edited by Hugh

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Holmes portable projectors are available with sound equipment, speakers, amplifying systems and microphones for interchangeable use in class rooms, assembly halls, auditoriums, lecture tours, gymnasiums, athletic fields, etc.

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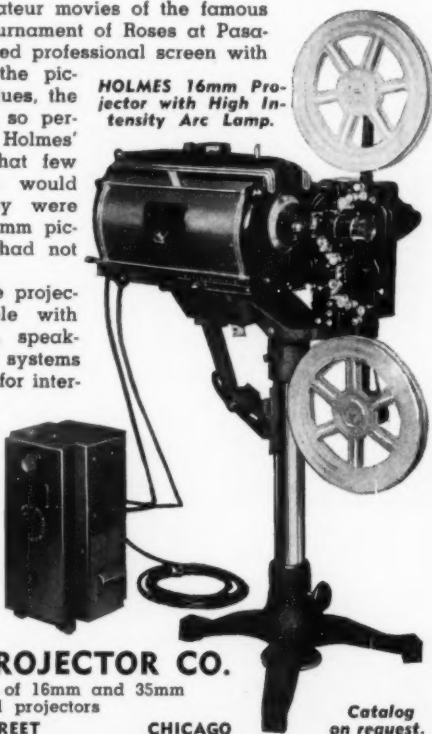
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For school floors to withstand constant hard usage.

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Shellac and varnish are easily scratched and wear off. LIGNOPHOL leaves nothing on the surface to be scratched or worn off.

It will protect your floors against warping, dry rot, cracking, splintering, pitting, scuffing and burn marks from rubber shoes. An excellent reason why you should investigate LIGNOPHOL for every wood floor or trim job on your list.

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A chemical liquid that will dustproof and wearproof your floors. The result is permanent—no retreatment necessary.

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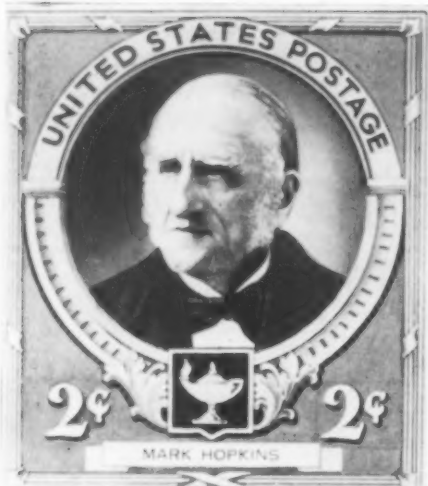
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The Mark Hopkins 2 cent stamp, another of the series of famous Americans, was issued March 14.

B. Wood, director of the curriculum laboratory. Orders and manuscript for publication should be sent directly to him. Study guides, syllabuses, units of work, descriptions of curriculum projects and other studies will comprise the desired topics.

Film Releases

How Stained Glass Windows Are Made

—The process of stained glass window making from the design to the finished product, photographed in London and illustrated by color reproductions of famous windows. 1 reel. 16 mm., silent. Black and white with color inserts. Harmon Foundation, 140 Nassau Street, New York City.

Safety Series—Vacation Safety—A safety film for use in grades 4 to 6 and in junior high schools. The film units are: (1) water safety in an organized camp, good swimming precautions; (2) boating, correct method of handling boats; (3) safe conditions in camp, dangers from broken glass and poison ivy; (4) fire building. 1 reel. 16 mm., silent. Teaching Films Division, Eastman Kodak Company, Rochester, N. Y.

What About Jobs?—Reel 1: Job situation prior to 1935 and today; also preparation for obtaining a job. Reel 2: Life situations; obtaining jobs; applications; interviews. 30 minutes. 16 mm., silent. Educational Research Association, 551 Fifth Avenue, New York City.

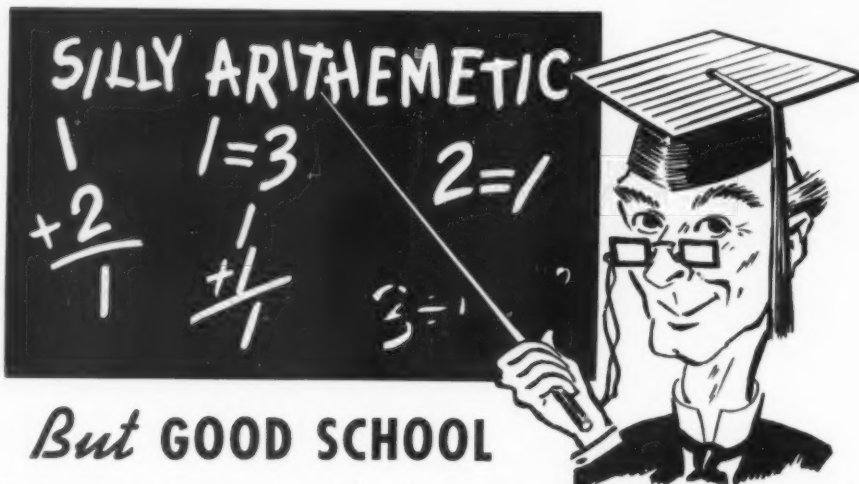
Teaching Creative Design—This film presents methods of teaching creative design in a class of junior high school pupils. To do this the possibilities and limitations of a given material are explored and the application of the same principles are used in the interpreta-

tion of forms taken from nature. The work shown is the actual development of a class during the photographing of the film. 1 reel. 16 or 35 mm., silent. Harmon Foundation, 140 Nassau Street, New York City.

How You Can Make Good Movies—

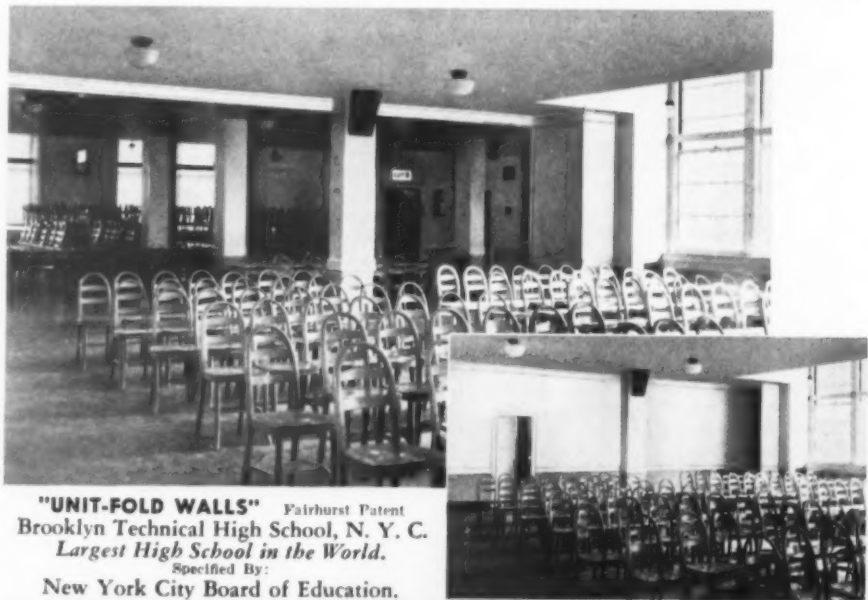
LESSON 1: HOW TO USE YOUR CAMERA. This film presents a complete study of the principal requirements for successful motion picture photography with amateur equipment. It begins with the first handling and loading of the camera and continues step by step to the exposure of the first roll and the unloading of the camera. Correct

methods of procedure are shown and explained in titles, so that the amateurs, after seeing this film and studying it carefully, should be able to make successful outdoor movies. 1 reel. 16 or 35 mm., silent. **LESSON 2: COMMON MISTAKES AND THEIR CORRECTION.** This film illustrates mistakes commonly found in nonprofessional movies. The poorly photographed scene is shown and the reason for it explained. 1 reel. 16 or 35 mm., silent. **LESSON 3: EXPOSURE AND EXPOSURE METERS.** 1 reel. 16 or 35 mm., silent. Harmon Foundation, 140 Nassau Street, New York City.



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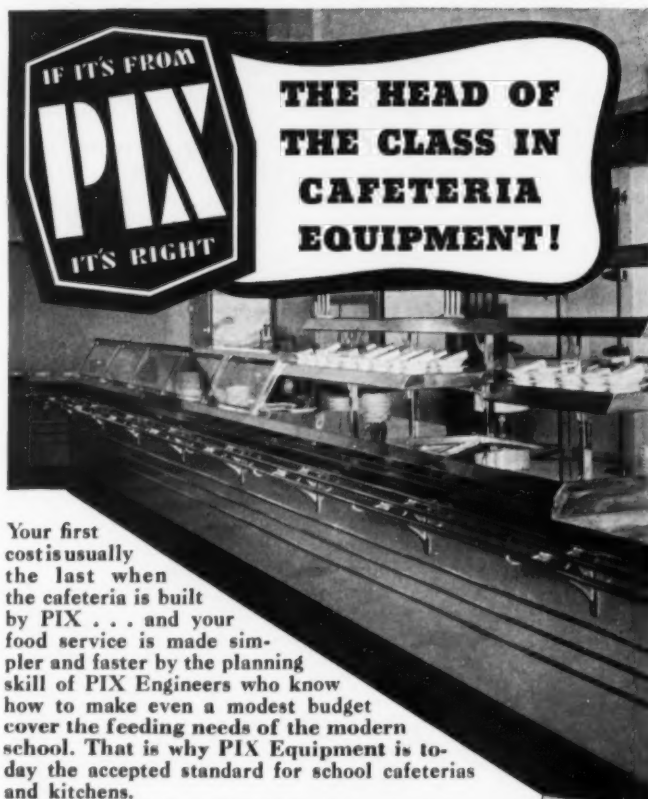
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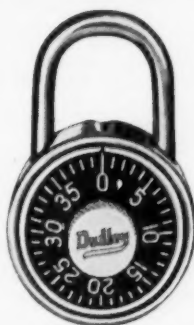
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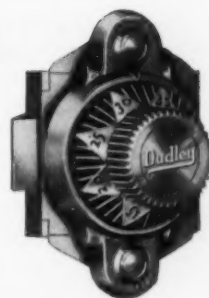
The NATION'S SCHOOLS, April 1940

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NAMES IN NEWS

Superintendents

DR. LEONARD JOHN NUTTALL JR. has been reappointed superintendent of schools at Salt Lake City, Utah, a position he has filled for the last eight years.

ARTHUR D. ARNOLD recently was reappointed superintendent at Passaic, N. J. Mr. Arnold will serve until January 1942, when he will become 70 years of age and his retirement will become mandatory.

JOHN L. COMPTON, principal of Emerson School, Bakersfield, Calif., has been appointed superintendent of Bakersfield city schools.

LORRAINE W. BILLS, superintendent at Herkimer, N. Y., will retire in June.

G. H. GERKE, for twenty-two years superintendent at Franklin, Ohio, will retire in August.

JEROME J. WHEELER was unanimously reelected superintendent of schools at Dunkirk, N. Y., for a one year term.

ELIZABETH FORREST JOHNSON, after thirty-seven years of association with Baldwin School at Bryn Mawr, Pa., twelve years as teacher and twenty-five as head, has announced her resignation. Miss Johnson will be succeeded by ROSAMOND CROSS, who joined the school faculty three years ago.

E. S. COLVIN, superintendent of schools at Osage City, Kan., has been reelected for his third year.

GAY ARGO, superintendent at Big Lake, Minn., for the last five years, has resigned and the school board has elected FRED MARVIN of Williston, N. D., to fill the position, effective September 1.

J. B. WOODSIDE, principal of Willoughby Union High School, Willoughby, Ohio, became acting superintendent of Willoughby schools when E. M. OTIS resigned recently. Mr. Otis has taken an indefinite leave of absence to seek relief in Florida from a throat ailment.

MRS. HELEN BURTT MASON, headmistress of Milwaukee-Downer Seminary, Milwaukee, has been named headmistress of Kimberley School for Girls, Montclair, N. J.

Principals

RICHARD W. OUTLAND of Euclid, Ohio, has been appointed principal of the Ely School, Elyria, Ohio, succeeding HARLEY Q. CARNICOM, who has been named principal of a large elementary school at Garfield Heights, Ohio.

WILLIAM H. SMITH, principal of Vernon L. Davey Junior High School, East Orange, N. J., has retired. DR.

PAUL S. MILLER, principal of Eastern and Stockton schools since 1929, was appointed to the vacancy.

W. R. LEBOLD recently was appointed principal of Cambridge High School, Cambridge, Ohio, to succeed the late HARRY L. PINE. Mr. Lebold has been vice principal of the high school.

EDWIN VANKEUREN has resigned as supervising principal at Flemington, N. J.

C. DARL LONG, assistant director of secondary education at Teachers College, Columbia University, has been named principal of Hastings High

School, Hastings-on-Hudson, N. Y., effective next September. He will succeed WILLIS E. DODGE, acting principal since the death of DR. THEODORE R. MYERS.

HOWARD M. CARR, vice principal at Stadium High School, Tacoma, Wash., since 1928, has been appointed acting principal for the remainder of the school year to succeed the late principal, E. E. PERKINS.

BROTHER LAMBERT, F.S.C., has been named principal of St. Mary's College High School, Peralta Park, Calif., replacing BROTHER VICTOR, F.S.C., who has gone to New York to engage in

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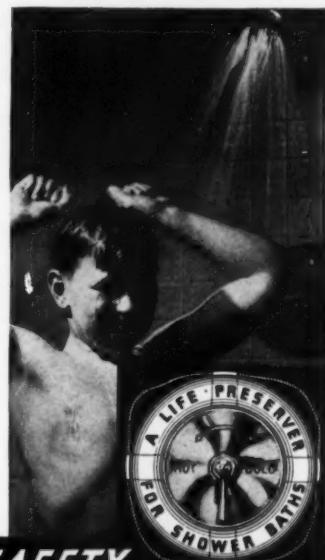
When you use a shower regulated by a Powers automatic safety shower mixer the temperature remains right where you want it. You can really enjoy the thrill of a comfortable shower in absolute safety.

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school administration work. The new vice principal, succeeding Brother Lambert, is BROTHER ALOYSIUS, former faculty member.

JOSEPH GAINSBURG is the new principal of Junior High School 73, Maspeth, N. Y. He succeeds JOSEPH F. WINGEBACH, retired.

WILLARD W. JONES, vocational guidance instructor, has been appointed principal of the Archer Street School, Freeport, N. Y., effective next September. He will succeed JULIA M. CRUMP, principal since 1922, who is retiring.

Miscellaneous

S. T. NEVELN of Austin, Minn., was elected president of the Schoolmasters' Rotary Club, an organization of Rotarians within the ranks of the A.A.S.A., at St. Louis recently. RAYMOND BURDICK, superintendent at Huntington, N. Y., was elected secretary. Mr. Neveln, who has served as secretary of the organization for sixteen years, has been superintendent at Austin since 1921.

In the Colleges

WILLIAM E. ARNOLD, assistant professor of education, University of Pennsylvania, has been appointed technical director of the Pennsylvania committee on education. This committee is an organization composed of representatives of various groups in that state that have been in disagreement as to the financial program of the state for the support of public schools.

DR. M. M. CHAMBERS, member of the staff of the American Youth Commission of the American Council on Education, will join the 1940 summer staff of the department of education at Ohio State University from June 17 to July 24. Doctor Chambers will offer two courses for graduate students: (1) legal aspects of school administration and (2) the preparation of theses and other scientific reports.

DR. MAURICE E. TROYER, associate professor in the school of education, Syracuse University, has accepted a full-time position as coordinator of evaluation with the commission on teacher education of the American Council on Education.

THEODORE L. RELLER, assistant professor of education, University of Pennsylvania, has been appointed secretary of Schoolmen's Week at the University of Pennsylvania. He succeeds LEROY A. KING, who resigned to become president of Indiana State Teachers College, Indiana, Pa.

LAWRENCE E. CHENOWETH, superintendent, Bakersfield, Calif., has resigned from the staff of Santa Barbara State College, Santa Barbara, Calif.,

where he will instruct in administration and supervision and in development of the curriculum.

DR. ROBERT D. STEELE was inaugurated recently as president of Westminster College, Salt Lake City, Utah.

DR. ARTHUR HOWE has resigned as president of Hampton Institute, Hampton, Va.

ROY M. GREEN, deputy governor of the Farm Credit Administration, Washington, D. C., has been elected to succeed DR. CHARLES A. LORY as president of Colorado State College. The new president will take over the office on October 1, when Doctor Lory retires.

Deaths

WILLIAM F. MINER, superintendent of schools at Farmington, Farmington Falls, West Farmington, Temple and New Vineyard, Me., died recently on his sixty-seventh birthday.

ROBERT E. QUIRK, 38, principal of the Amherst Junior High School, Amherst, Mass., since 1926, died recently at Albany, N. Y.

IRA S. BRINER, superintendent of schools at Sunbury, Pa., died recently of heart disease.

JOHN S. GILMAN, superintendent of schools at Laconia, N. H., for twenty-two years, died recently.

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DELICATOR**

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IMPROVES ALL MEATS

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The NATION'S SCHOOLS, April 1940

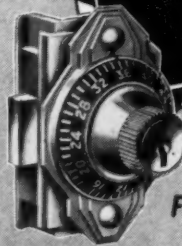



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THE BOOKSHELF

EDUCATION IN THE KINDERGARTEN. By Josephine C. Foster and Neith E. Headley. New York: American Book Company, 1939. Pp. xii+368. \$2.50 list.

Valuable description of desirable kindergarten instructional practices that should be welcomed by the preprimary specialist.

MENTAL HYGIENE FOR THE CLASSROOM TEACHER. By Laurence A. Averill. New York: Pitman Publishing Corporation, 1939. Pp. iv+217. \$2.

Practical and worth-while consideration of fundamental psychological problems that give considerable difficulty to the teacher. Designed for teachers in service.

FILMS ON WAR AND AMERICAN NEUTRALITY. Current Bibliography No. 1 16 mm. Sound Films. Prepared by the Motion Picture Project, American Council on Education. Washington, D. C.: American Council on Education, 1939. Mimeographed. \$0.25.

"Purposes are to promote a thorough understanding of the backgrounds of war and the meaning and

consequences of American neutrality, to develop an awareness of propaganda at work and to assist in reaching conclusions as to ways and means by which solution of problems by violence may be abandoned among civilized nations."

EDUCATION FOR DEMOCRACY. *The Proceedings of the Congress on Education for Democracy.* Thomas H. Briggs and Will French, Editors. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. xii+466. \$2.50.

Distinguished Americans and foreigners consider some of the current problems of democracy. All model opinions find expression; only the extremes of radicalism and reactionary beliefs are excluded.

THE GRADUATE SCHOOL IN AMERICAN DEMOCRACY. By Isaiah Bowman. Washington, D. C.: U. S. Government Printing Office, 1939. Bulletin 1939, No. 10. Pp. ix+70. \$0.15.

"Rigorous discipline of the mind and freedom of expression have a profound importance in the continued growth of

creative power. They are equally important in the preservation and further evolution of democracy itself. The theme of this study is the growth of intellectual power through a combination of discipline and freedom in graduate work."

THE ENDING OF HEREDITARY AMERICAN FORTUNES. By Gustavus Myers. New York: Julian Messner, Inc., 1939. Pp. 395. \$3.50.

The democratic policy of "equality" that started with the abolition of primogeniture, entailment and mortmain in the early days of the republic is traced in its more recent developments through inheritance, estate and income taxes to show how the evolution of this policy will prevent the continuance of great hereditary fortunes. A fitting companion book to "The History of Great American Fortunes."

GOVERNMENT AND ECONOMIC LIFE, Volume I. By Leverett S. Lyon, Myron W. Watkins and Victor Abramson. Washington: The Brookings Institution, 1939. Pp. 519. \$3.

The first of a two volume research that seeks to analyze the relationship of government to economic life as a whole in terms of fundamental economic and social functions and fundamental governmental activities. Governmental relationships to private en-

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Does the Whole Job of School
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Burnishes Seal—Wet or Dry—
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Sands. No Dust.

The Tennant machine cleans the heaviest traffic floors without the use of water. The attachments can be exchanged quickly without the use of tools.

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terprise are analyzed in the first volume from the standpoint of implementation and regulation.

EVALUATION OF SECONDARY SCHOOLS.

General Report on the Methods, Activities and Results of the Cooperative Study of Secondary School Standards. Pp. xxx + 526. How to EVALUATE A SECONDARY SCHOOL. 1940 Edition. *A Manual to Accompany the 1940 Editions of Evaluative Criteria and Educational Temperatures.* Pp. xxiii + 139. EVALUATIVE CRITERIA. 1940 Edition. *To be used with the 1940 Editions of How to Evaluate a Secondary School and Educational Temperatures.* Pp. 175. EDUCATIONAL TEMPERATURES. 1940 Edition. *A Series of Scales.* Pp. 24. Walter C. Eells, Coordinator. Washington, D. C.: Cooperative Study of Secondary School Standards, 1939.

These volumes represent the terminal results of an extensive survey and should be valuable in the progressive improvement of secondary education. Their emphasis upon appraisal is most timely.

TEACHERS FOR DEMOCRACY. *Fourth Yearbook of the John Dewey Society.* By George E. Axtelle, William W. Wattenberg and Others. New York: D. Appleton-Century Company, 1940. Pp. xii + 412. \$2.50

In many respects this yearbook is the most significant produced by the John Dewey Society. It deserves careful reading by the teaching profession.

Just Off the Press

JESUS AND EARTHQUAKES. *The Two Greatest Forces in the World: Ethical and Material.* By F. E. Austin. Cambridge, Mass.: Murray Printing Company, 1939. \$1.

TEACHER'S MANUAL TO ACCOMPANY CONSUMER SCIENCE. By Alfred H. Hausrath Jr. and John H. Harms. New York: The Macmillan Company, 1939. Pp. 125. \$0.60.

EXTENDED LEAVE FOR PUBLIC SCHOOL TEACHERS IN LARGE CITY SCHOOL SYSTEMS. By Carl Franklin Hankins. Nashville, Tenn.: George Peabody College for Teachers, 1939. Pp. 10. (Paper Cover).

BILLY FORGET-ME-NOT. (For Children From 5 to 8). By Maude M. Tanner. Chicago: Follett Publishing Company, 1939. Pp. 54. \$1.

FIRST NUMBER BOOK. By John R. Clark, Arthur S. Otis and Caroline Hatton. Yonkers-on-Hudson, New York: World Book Company, 1939. Pp. 64. \$0.24. (Paper Cover).

CHECKLIST OF SAFETY AND SAFETY EDUCATION. Prepared by the Safety Edu-

cation Projects of the Research Division. Washington, D. C.: National Education Association, 1939. Pp. 30. \$0.25 (Paper Cover).

COOPERATIVE ACHIEVEMENT TESTS. *Designed for High School and College Classes.* By the Cooperative Test Service. 15 Amsterdam Avenue, New York: American Council on Education, 1939. Pp. 48. (New 1940 Announcement).

COLLEGE GENERAL MATHEMATICS FOR PROSPECTIVE SECONDARY SCHOOL TEACHERS. By Lee Emerson Boyer. State College, Pa.: Pennsylvania State College, 1939. Pp. 106. (Paper Cover).

THE FIGHT ON CANCER. By Clarence C. Little. New York: Public Affairs Committee, Inc., 1939. Pp. 31. \$0.10 (Paper Cover).

SIDELIGHTS AND SOURCE STUDIES OF AMERICAN HISTORY. *From the Time When the First Europeans Came to the New World to the Close of the Civil War.* By Harriet H. Shoen and Erling M. Hunt. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. v + 103. \$0.90.

SCHOOL REORGANIZATION IN WEST VIRGINIA. Prepared by Division of Research. Richard E. Hyde, Director. Charleston, W. Va.: State Superin-

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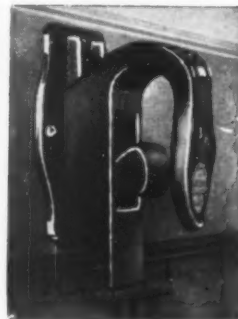
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tendent of Free Schools, 1939. Pp. 43. (Paper Cover).

COMPARATIVE CHARTS OF STATE STATUTES ILLUSTRATING BARRIERS TO TRADE BETWEEN STATES. Prepared by Members of Marketing Laws Survey. Works Progress Administration. Washington, D. C.: Superintendent of Documents, 1939. Pp. vii+88. \$0.25 (Paper Cover).

THE STUDY OF COLLEGE INSTRUCTION. Yearbook XXVII of the National Society of College Teachers of Education. Fowler D. Brooks, General Editor. Chicago: University of Chicago Press, 1939. Pp. 314. \$1.50 (Paper Cover).

HISTORY OF EDUCATION AND COMPARATIVE EDUCATION. Volume IX, No. 4, Review of Educational Research. Reviews the literature for the three years ending April 1939. Washington, D. C.: American Educational Research Association, 1939. Pp. 333-448.

EDUCATION IN YUGOSLAVIA. By Severin K. Turosienski. U. S. Office of Education, 1939. Washington, D. C.: U. S. Government Printing Office. Pp. vii+146. \$0.25 (Paper Cover).

A MANUAL FOR REMEDIAL READING. By Edward William Dolch. Champaign, Ill.: The Garrard Press, 1939. Pp. x+166. \$2.

TRADE NEWS.....

Springboard Floor

A new idea in gymnasium construction is a bouncing floor. It is floated on a network of shock absorbing steel springs to absorb the physical jolts of exercise and is finished with a wood preservative that is nonslippery and yet so durable that game markings are permanent. Such a floor recently was installed in the employees' gymnasium at Rockefeller Center.

In the construction of this floor, foundation sleepers were set on the steel springs, were bolted at the top to the sleeper and were set in acoustical glue at the bottom of the spring. Subflooring of spruce was laid diagonally on the sleepers and was covered with a 35 pound asbestos paper. Over this the top flooring of fireproofed hard maple was then laid. The top flooring was finished with a hard-wearing, nonslip preservative known as Lignophol, a product of L. Sonneborn Sons, Inc., 88 Lexington Avenue, New York City.

In walking across the floor, the "spring" is only slightly noticeable but, after an hour or more of hard tennis or

handball, there is less fatigue than would be noticed after a similar period of bouncing on a hard nonresistant flooring.

The spring isolator used in the floor is manufactured by Johns-Manville, 22 East Fortieth Street, New York City.

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Finish for Laboratory Furniture

The Walrus Manufacturing Company, Decatur, Ill., has been working for years to find a finish for woodwork that will not stain or be marred by heat, high humidity or acids. This company is now announcing the result of its research with a new finish for use in school or industrial laboratories.

This finish is tough, waterproof, non-inflammable and gas-tight. It is a scientific formulation of inert substances and plasticizers. Its hard finish can be kept clean and sanitary by frequent washing and scouring, without being affected by scouring materials. It is as transparent as any ordinary finish and does not dim the beauty of the natural grain in the wood.

But the real news value about this finish is that it is resistant to chemicals.

The Walrus Company will send a sample of white oak, finished with this new coating to any reader wishing to make his own tests in proof of claims.

Light Reflecting Blackboard

A new chalkboard, called Nucite, manufactured from a specially treated plate glass was announced last month

by the Pittsburgh Plate Glass Company. Nucite is being produced in three standard colors, ivory, green and black, in order to give school decorators more leeway in working out color and lighting schemes. Dark chalk is used on the ivory board and light chalk on the green and black products.

Nucite is said to have less glare and its lighter colors can be used in better illumination of schoolrooms. Like plate glass, Nucite is nonporous, nonabsorptive and chemically resistant.

For Stubborn Hand Stains

Han-Kleen is a new mechanic's soap developed by the Finnell System, Inc., Elkhart, Ind., manufacturers of electric scrubbing and polishing machines and scouring powders. It removes oil, grease, printers' ink, paint and other substances of similar nature that defy removal by ordinary cleansers or soaps. It works quickly, leaving the hands soft and really clean. The product has been used without injurious effect upon hands that have been cut and bruised. The Finnell System will install a dispenser and sample of Han-Kleen for a short trial period.

Counteracts Hard Water Deposits

One of the problems confronting school cafeterias, particularly those in

hard water areas, is the accumulation of lime scale deposits in dishwashing machines. Often these undesirable deposits are transferred to glassware and dishes.

Oakite Composition No. 63, a material developed by Oakite Products, Inc., 22 Thames Street, New York City, contains unusual lime solubilizing properties; these keep in suspension much of the insoluble content of hard water.

Just off the press is a new folder that gives complete details on this product. Free copies of this booklet will be sent by Oakite Products, Inc., to readers who request them.

Personalities in the Trade

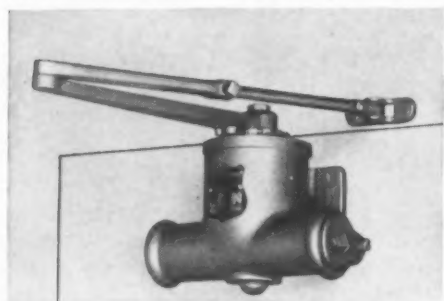
P. A. Snyder, assistant manager, specialties sales, Yale & Towne Manufacturing Company, Stamford, Conn., has been promoted to the position as manager of specialties sales of the Stamford division. Mr. Snyder has been associated with Yale & Towne for nineteen years.

Thomas J. Watson, president of International Business Machines Corporation, has announced the promotion of Arch Davis, advertising manager, to the position of executive secretary of the company. He will assist Mr. Watson and the officers of the corporation in matters dealing with all phases of the company's operations.



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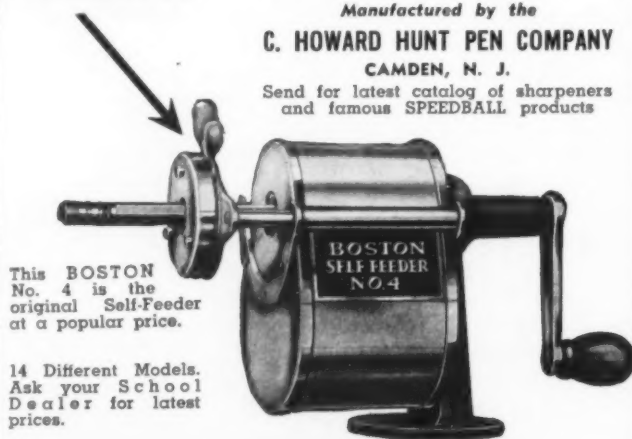
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CONTENTS

For May 1940

Looking Forward	17
All Roads Lead to Alexander, Roswell E. Pfohl	20
Principal Smith's Progress, Earl Hutchinson	24
Graduation Time Is Here Again, Viola Eblen	25
First Graders Can Participate, Lester B. Ball	26
Our One Teacher Schools Are Ideal for an Activity Program, Dewey Fristoe	27
Who Should Handle Placement? Spencer D. Benbow	29
Two Teacher Community School	30
Pupils Assist the Teacher, G. G. Starr	31
Wherein Junior Colleges Fail, B. Lamar Johnson	32
School Work on Parade, George A. Stracke	49
Supervised Correspondence Study, T. W. Thordarson	51
Cheyenne Provides for Increased Enrollment, J. L. Goins	52
Let the School Be a Democracy, Florence E. Eckhardt	55
Why Administrators Change Jobs, Erich Selke	58
Improving Attendance, Dwight L. Wilson	60
Guidance for Ninth Graders, M. R. Stokesbary	62
First, Ascertain the Cause, Albert Earley	64
What Do Tenure Laws Protect? M. M. Chambers	66
A Repair in Time—, Ruel E. Daniels	70

Portfolio of Pupil Transportation

Determining Costs of Pupil Transportation, C. D. Hutchins	34
Planning for Transportation, W. A. Obuch	36
Check List for Use in Planning Bus System	37
Should the School Own Its Buses? F. Ray Power	38
Standards for School Buses, M. C. S. Noble Jr.	39
Who Should Be Responsible? Frank W. Cyr	40
Bus Becomes Educational, Ward G. Reeder	41
Records of Operating Costs, W. W. Molsberry	42
Qualifications for Drivers, J. T. Reece	44
Maintenance in North Carolina, Lloyd Griffin	45
Adult versus Pupil Drivers, Roben J. Maaske	46
Problems in Pupil Behavior, A. R. Meadows	47
Six Buses Transport 1450 Daily, Lawrence E. Chenoweth	48

The School Cafeteria

Forming Good Food Habits, Irene Tracy	72
Free Food for Frail Bodies, Helen Tooke Butler	74
Food Cost Tables—Staples, Grace S. Saunders	76
Lessons in Meat Cutting, Neosho Fredenburg	80

Better Plant Practices	6	Film Releases	88
Index of Advertisers	15	Films in Review	90
Chalk Dust	54	Coming Meetings	92
As Others Say It	68	Names in the News	95
News in Review	82	The Bookshelf	100
On the Air During May	86	Trade News	104

Side Glances—

UTOPIA, to the school engineer, is that state in which no classroom teacher complains about the room temperature. Superintendents of buildings, architects, engineers and health officials are to discuss heating and ventilating problems in June's special portfolio. Even the fine array of talent to be represented has not found the complete answer to the teacher's lament but each year brings some progress. The June portfolio will bring school administrator and engineer up to date.

GREENVILLE, S. C., is not just another textile mill town. It would be, except for its school system. One of the finest instances of school leadership in the United States has transformed Greenville into something nearer a model than a mill town. Dean Fraser of Winthrop College and Sadie Goggans, professor of education, have written a moving account of Greenville's school community. We are proud to present it as the headliner for the June issue.

SACRAMENTO'S system of elementary school libraries may well become the inspiration of other schools in California and throughout the nation. Leo B. Baisden, assistant superintendent, and Jewel Gardiner, professional librarian, will tell next month how the 1100 school children in the first six grades learn to live in the world of books. Each school has an excellent library of its own. Thirty teacher-librarians serve the 17 elementary schools.

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LOOKING FORWARD

Summer, a Busy Time

ALTHOUGH the children may be away on vacation and the teachers, in summer school, the superintendent enjoys only a few weeks' respite during the summer months. Contrary to popular impression the schools do not close shop during the summer. Scarcely has the semester closed when the work of summer cleaning and renovating starts. During the month of August, plans must be made for the ensuing year; new supplies, books and equipments purchased; last minute teacher replacements made, and a multitude of minor tasks performed. The summer is also the time when the superintendent may try to catch up on his professional reading and spend more time browsing through technical journals. If he manages to find a few weeks for fishing or general vacation travel, he is lucky. Summer is a busy time for superintendents.

Transportation

ONE aspect of the equalization of educational opportunity has been given increasing emphasis in recent years. The people have come to realize not only that it is necessary to furnish educational opportunity but that it is just as essential to furnish the means of taking advantage of existing opportunities. Since 1934 the federal government has given increasing attention to the equalization of economic ability to attend schools by the means of work scholarships through the National Youth Administration. Local school districts and the states are progressively widening their plans to bring pupils to the schools by means of public transportation.

Transportation should be considered as an aspect of equalization. This is the only valid and defensible attitude. The fact that transportation of school children has become an economic activity of no mean size is purely an incidental secondary factor. The growth of the equalization idea has also had wide economic repercussions. It has stimulated the manufacture and sale of school buses, provided steady employment for large numbers of individuals as chauffeurs, given secondary employment to numerous mechanics and consumed no insignificant amount of lubricants and gasoline. It has become so firmly entrenched in its economic aspects that its primary purpose is sometimes

obscured in the swirl of these special economic demands.

The teaching profession should always bear in mind that the only justification for school transportation is its contribution to the attainment of a certain but fundamental objective—the equalization of educational opportunity.

Teacher Examinations

THE proposed experiment that may lead to the eventual standardization of examinations for teachers upon a national basis, now being sponsored experimentally by the American Council on Education, deserves a critical and objective review upon the part of teacher training institutions and the teaching profession as a whole before acceptance or even endorsement. Its general purpose, the improvement of teaching personnel, is one with which no one can find fault. However, in the effort to improve teaching service, extreme care should be taken not to begin a practice that may ultimately have the opposite effect from that intended by its sponsors.

Many thoughtful educationists, who have studied the bad results of the continental system of teacher examination, are fearful that the development of general examinations for teachers, standardized on a national basis, may result in standardizing the teacher product and in making training schools centers for a cramming process whereby the major work prepares for these examinations. The American passion for organization and standardization may in a short time conventionalize these practices into a series of hurdles, producing a standardized and improved technical product, but seriously retarding the growth of some of the finer elements of evolving teacher training programs.

The certification of teachers is a state function and should remain a state function. There is no particular value even within the states or their larger cities in basing admittance to the profession solely upon standardized examinations with little regard for other aspects and qualities that cannot be objectively measured. There is even less merit in attempting to standardize teacher qualifying examinations for the country as a whole.

There is, on the other hand, considerable merit in developing individual differentiation in teacher train-

ing programs within each state. One of the serious current criticisms that may be made of teacher training institutions is the lack of differentiation and the unfortunate emphasis upon professional courses. The tendency toward standardization may produce capable technicians but it is doubtful whether it will produce educated teachers who are competent to teach democratic ideals and practices.

The Government Proposes

WITH incisive logic and succinct clarity Dr. Charles Hubbard Judd analyzed for the assembled administrators at the St. Louis convention the changing demands upon secondary schools. He stated fairly the lag between the needs of the multitude of youth without prospect of jobs and without the capacity to benefit from a purely intellectual education. To him the secondary school was too completely conventionalized in an academic sense to be able to meet the new demands that a changing economy and an unusually prolonged depression have brought to the schools. His conclusions were that, since the community secondary school had failed to meet these demands, only the federal government is capable of meeting the situation and that, as a result, the schools should cooperate with the federal government in the acceptance of dual responsibility for the academic and practical needs of youth.

We are in complete accord with Doctor Judd's statement of need. He presented the problem without either understatement or overstatement. However, it does not follow that his solution is either the only one or the best one.

These youth needs are relatively new. They have only been brought to the consciousness of the secondary schools within the last few years. It is difficult for an institution, hampered by strong tradition, to change overnight. It is even questionable to assume that it should. There are several possible analyses of existing conditions. Neither is it quite accurate to state that the secondary school has failed or cannot change. If one's experience is confined to the large and inflexible urban secondary schools, there may be considerable reason to be pessimistic. The secondary school in smaller communities is by no means as inflexible as many specialists would have the layman believe.

During the last decade considerable progress has been made in numerous centers toward the development of a secondary school more completely adjusted to community needs. Greater curricular flexibility, willingness to experiment with emerging needs and better adjustment of instructional programs to individual needs are features of this movement. To deny that our community secondary schools are incapable of coping with this problem is scarcely in harmony with actual facts. The secondary school, closely inter-

woven into community life, is potentially the most effective agency for carrying on the dynamic type of instructional program demanded by current conditions.

The development of the secondary school is hampered just as much by lack of funds for expansion and adjustment and lack of capably trained personnel as by institutional inertia. Instead of assuming that only the federal government can meet this need, it might be more sensible first to attempt the enlargement of local budgets to make changes possible. Until this has been accomplished, it is of dubious value to assume that community agencies cannot satisfy these needs.

The record of the federal government in its varied educational ventures is no better than that of the average community. To assume that it is suddenly capable of solving so complicated a problem as that of youth in its relation to current economic conditions with the same or even less capable personnel is not realistic thinking.

There is no need for being pessimistic about the ability of community secondary schools to meet changing needs. Let's give them a fair chance before assuming that the teaching profession is incompetent within the community and much more competent when the control shifts from the community to a federal bureau.

The School Plant

THE state's interest in the school plant problem has increased with the progressive assumption of greater responsibility for the improvement of education and the equalization of educational opportunity. This interest is best expressed when the state exercises its authority through the influence of leadership and the means of appraisal available while the community is held strictly accountable for the actual determination of need, the formulation of plans and their efficient execution.

From the viewpoint of the state, the school plant is so closely related to fundamentals of structural and instructional reorganization that its neglect is difficult and inadvisable. Within the state department there should be a school plant division. Its major responsibility would include the collection of information, the development of general plans and the review of local plans for structural reorganization. This school plant bureau would be concerned with the educational approval of plans and specifications. It is desirable that active cooperation both within the state education authority and among the authority and the several contributing state agencies be developed.

The conventional attitude toward the financing of school buildings as a local problem has resulted in long-term borrowing. This practice has doubled the cost of school construction. A huge funded debt amounting to \$3,043,125,380 has been created, ranging

from \$18.99 per child in average daily attendance in Mississippi to \$303.89 in New York, with a national per capita average of \$136.47, necessitating the first annual expenditure of nearly \$15 per capita for principal and interest payments before current operating needs may be met. The creation of a large debt obligation for public education, based upon dubious analogies and the assumption of an accelerated population and industrial growth, is a questionable practice.

It is desirable that both state and federal governments bear a large proportion, if not all, of this capital burden. As long as the cost of structural reorganization is made an extra burden upon the local district, there will be little inclination toward change. Six states already have recognized the value of local stimulation through school building aids for reorganization of local districts. Both the Regents' Inquiry Into the Character and Cost of Public Education in New York and the report of the Advisory Committee on Education make specific recommendations for increased state aid to school plant construction as a means of stimulating the reorganization of inadequate districts. There is also a gradually growing recognition of the need for financing the school plant without resorting to borrowing.

Pay Up

CARELESSNESS or thoughtlessness of boards of education and individual members of the teaching profession with respect to prompt payment of personal and professional contractual obligations reflects negatively upon the public school and serves to destroy that confidence which is so essential to institutional interpretation. Publishers and supply and equipment vendors contract in good faith with boards of education for material and equipment. They frequently claim that collections are delayed from three to six months, making it expensive to carry these accounts. Some organizations have become so annoyed at these dilatory procedures that they refuse even to bid on school work.

Community merchants and publishers frequently complain that it is difficult to collect even small personal credits. Individuals contract to purchase books, magazines and other material and then forget all about payment. When reminded of their obligations, they frequently write emotional letters to their creditors.

The negligent school board, administrator and teacher form a small minority of the total field. However, the reactions engendered by their carelessness are far beyond what might be expected. Indifference to financial obligations hurts the schools with the community as well as with commercial organizations generally. One of the best resolutions every school board and individual member of the teaching profession could make is to meet promptly all credit obligations within the conventional thirty day limit.

Curricular Revision

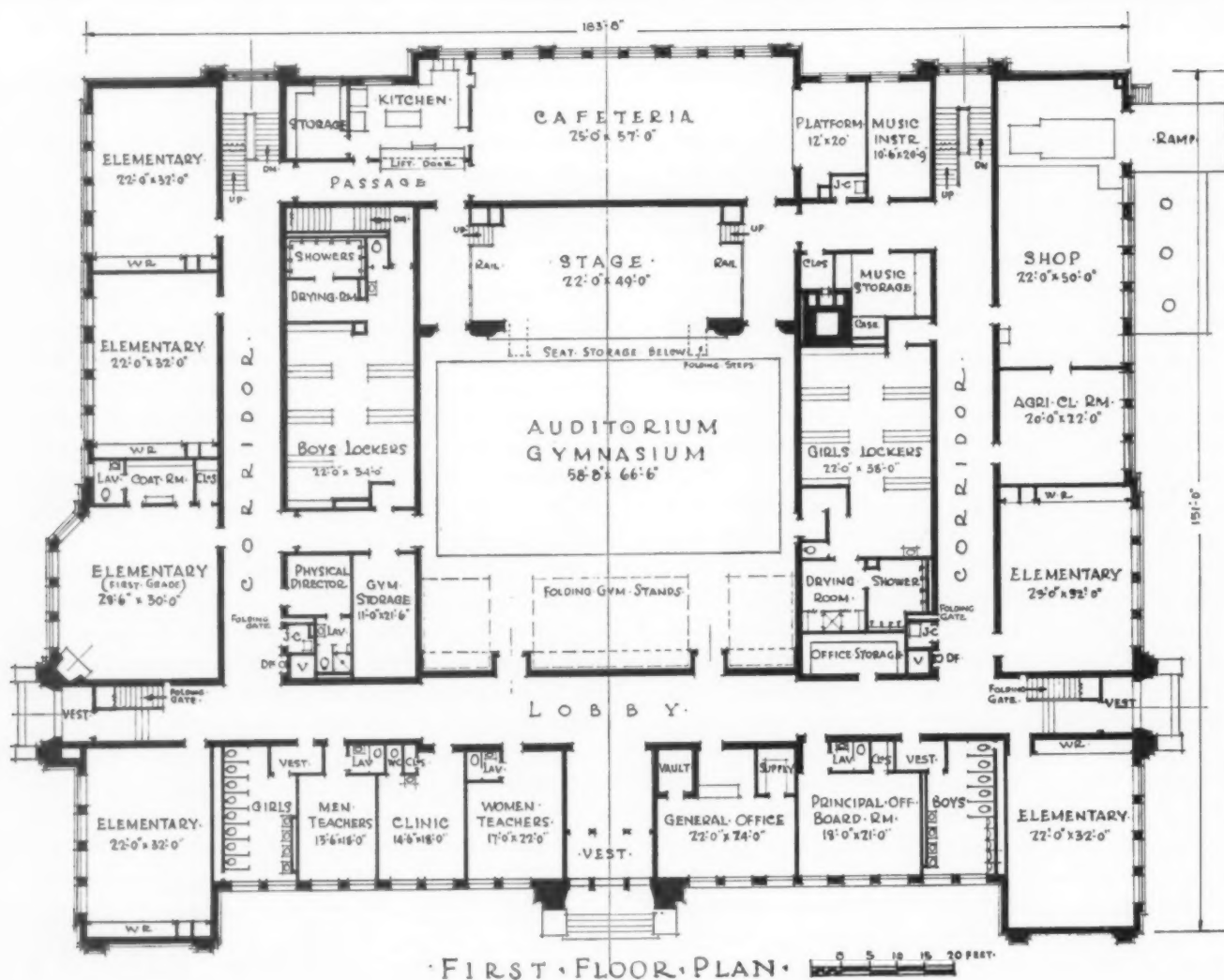
THE state's broad responsibility for educational planning extends to the instructional program but, in order that local initiative may not be stifled or instruction bureaucratically regimented, it is highly desirable that this responsibility be limited to furnishing leadership and stimulation to the communities. The state should be empowered to establish a basic or minimum curriculum commensurate with its social needs.

There are two general points of view concerning the method of instructional development. One emphasizes the leader concept while the other believes in the co-operative method by which the ability and experience of the teaching profession are capitalized, the plans are developed democratically and the local district is given freedom to develop its instructional program. A sound theory of instructional procedure is that the state may develop the general requirements of a mandatory minimum program but that the local community should be free to vary from this basic plan in accordance with its desires and needs. Such a plan may provide for more variation than uniformity but there are a sufficient number of integrating forces that will tend to produce unity. Variation will occur in the extent and quality of the program while the greatest uniformity will be found in organizational, administrative and teaching practice.

The typical state department has made little progress in the organization of instruction on a functional basis. In the typical state, instructional divisions are possible of coordination only through the office of the state superintendent, a difficult condition in terms of the actual problems involved and the demands upon this official's time. With few exceptions, all of the instructional divisions are imbalanced by the unusual emphasis placed upon the supervision and control of vocational activities in which the federal and state governments have a joint interest. More than half of a state department's personnel may be concerned with some aspect of vocational education while the remainder suffers heavily from neglect.

One of the major activities of many state departments in recent years has been the emphasis upon curriculum reconstruction. The California, Michigan and Virginia plans are typical of this movement. One of the significant features of these curriculum revision programs is the special emphasis that they do not represent state curriculums as much as state guidance programs. All of these revision programs have considerable merit, particularly insofar as they are stimulating much needed changes in secondary practices.

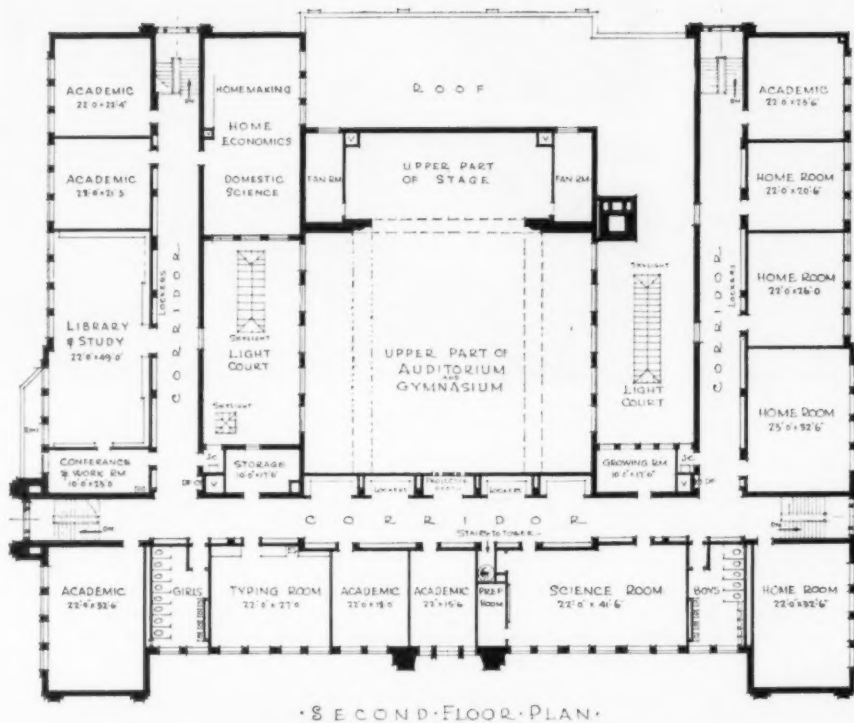
The Editor



All Roads Lead to Alexander

ROSWELL E. PFOHL

Architect and Engineer, Buffalo, N. Y.

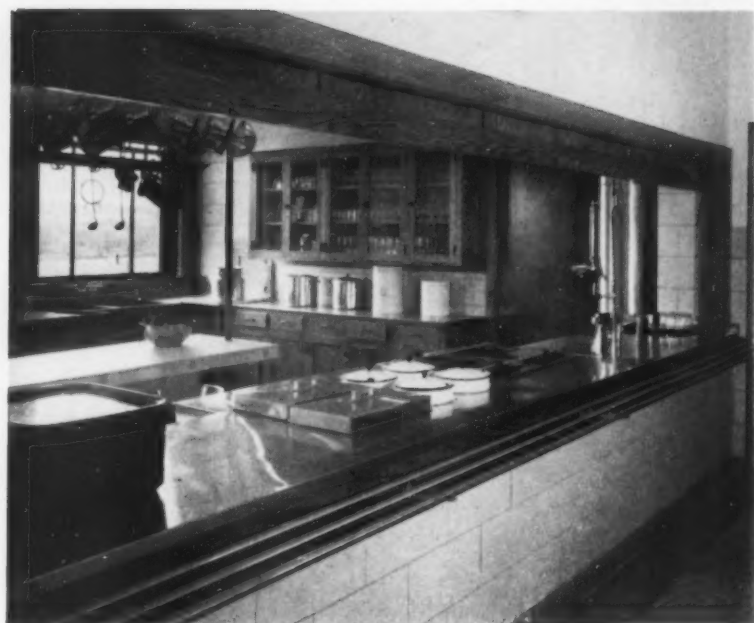


CENTRAL School District No. 2 of the towns of Alexander, Batavia, Bethany and Darien, Genesee County, and the towns of Attica, Bennington and Middlebury, Wyoming County, New York, organized June 14, 1937, resulted from the centralization of one union free and 17 common school districts covering an area of approximately 70 square miles, 14 miles long (east and west) and 5 miles wide.

The site chosen for the new central school building is on the south side of Broadway Road, a secondary thoroughfare running east and west through the village of Alexander. It was selected because it afforded the necessary acreage in a central location relatively free from excessive traffic hazards, this outweighing certain topographical disadvantages.



Rear of auditorium-gymnasium showing folding stands, two of them open, two closed. Lights are flush with ceiling.



Shop door at far end connects with agricultural classroom. Cafeteria kitchen and counter, showing ceramic tile wainscot.

The building faces north on Broadway Road. A "U" plan with the combination auditorium-gymnasium in the center was found best adapted to the site. It afforded a desirable width of façade along the street frontage and, at the same time, provided the necessary east and west exposures for the classrooms, homerooms and study rooms. Since the property sloped sharply downward south from the road, the reduction in depth of building accomplished by this plan was also desirable. The disadvantage of this downward slope was offset by careful terracing of approaches and lawn areas and was turned to advantage by utilizing a portion of the rear basement for a needed bus garage.

Grades 1 to 6, inclusive, are accommodated in six elementary rooms on the first floor. Only six rooms are provided for grades 1 to 6, since one of the large rural districts wished to maintain a separate school for children in these grades. These elementary rooms are provided with ventilated wardrobes with receding doors at the rear of the rooms. Here the children remove, store and put on their wraps under the supervision of their teacher.

Grades 7 and 8 are assigned four homerooms on the second floor. Grades 9 to 12, inclusive, have assigned to them six academic rooms, in addition to the special purpose rooms on the second floor and the shop and agricultural classroom on the first floor. The pupils in grades

Outline of Construction Details

STRUCTURE

Wall bearing, fire resistive construction. Basement and garage, fireproof. First floor, flat slab construction. Second floor and roofs, concrete slab on steel beams. Exterior walls, light variegated rough textured buff brick with Indiana limestone trim.

ROOF

Five ply tar and gravel over 1 inch cork insulation. Copper flashings.

WALLS

Auditorium-gymnasium and shop, brick. Classrooms, painted hard plaster. Toilet rooms, mottled ceramic tile wainscots, partition height. Corridors, mottled ceramic tile wainscoting erected as integral part of the bearing walls.

WINDOWS

Sash, double hung white pine, weather stripped.

WOODWORK AND TRIM

Select white oak. Limestone and polychrome terra cotta trim in auditorium-gymnasium.

CEILINGS

Classrooms and corridors, acoustical plaster. Auditorium-gymnasium, acoustical tile.

FLOORS AND FLOOR COVERINGS

Corridors, terrazzo. Auditorium-gymnasium, hard maple. Shop, concrete at automotive end; hard maple, elsewhere. First grade room, inlaid linoleum in patterns and color. Other classrooms, 6 mm. brown linoleum. Toilet, locker and shower rooms, nonslip tile.

LIGHTING

Direct, except in library and offices where it is indirect. Auditorium fixtures recessed with square prismatic lenses.

COMMUNICATION SYSTEM

Radio and public address system having two channel radio, phonograph and supervisory control features. Clock and program system operates from master clock in central office. Telephone system connects general office with all rooms.

HEATING AND VENTILATING

Two tubular steel steam boilers, stoker fired. Inside and outside coal storage rooms. Hot water generator with automatic steam coils and auxiliary heater for summer use. Cast iron radiation and unit ventilators, all thermostatically controlled. Stainless steel grilles in auditorium-gymnasium.

PLUMBING

Water supply with pump, storage tank, chlorination and water softening equipment. Septic tank and leaching field with run-off to creek. Storm water separately collected and by-passes septic tank and field. Toilet fixtures, vitreous china; wall hung, except in private toilet rooms. Partitions in toilets and girls' shower rooms, marble.

ATHLETIC FIELD AND PLAY AREA

Standard quarter mile track, football field, baseball and soft ball diamonds, bleachers, badminton and volley ball courts, tennis courts, horseshoe courts for secondary school pupils. Swings, teeter boards, jungle gym, ladders, sand boxes, slides for small children. Athletic field for girls. Gravel parking area.

7 to 12, inclusive, each have assigned to them a steel locker in the second floor corridor. These lockers are set into and flush with the second floor corridor walls.

The first grade room has an inlaid linoleum floor in patterns and color. There is a large red circle having the alphabet in white letters and inlaid figures of circus scenes. The wood burning fireplace in this room has tiles with nursery rhyme figures.

Locker and shower rooms have salt glaze tile wainscots and gang showers for both boys and girls. Private stalls that are marble partitioned are also provided for the girls who prefer them.

The auditorium-gymnasium is equipped with folding stands, seating 300 persons. In addition, 500 folding chairs, stored on trucks under the stage platform, may be placed on the gymnasium floor, making a total auditorium seating capacity of 800.

Windows located on the east and west sides of the auditorium on light courts above the locker rooms pro-

vide excellent daytime lighting. The location of locker rooms, providing direct access to and between corridors and gymnasium, eliminates noise and confusion. Direct access from the auditorium to the cafeteria is provided at both sides of the stage in addition to the regular pupil entrance from the east corridor. Since many evening functions are held where light lunches and even dinners are served, this arrangement has provided accessibility and circulation. Above the doors on each side of the stage are marble mosaic panels depicting, in early maritime manner, maps of the eastern and western hemispheres.

The music instructor's office and music storage room are conveniently located on a side corridor connecting with the west end of stage and cafeteria, since it is here that the musical activities are centered.

A complete athletic field and a play area have been developed under the landscaping and grounds development contract. A gravel parking area has been provided and space

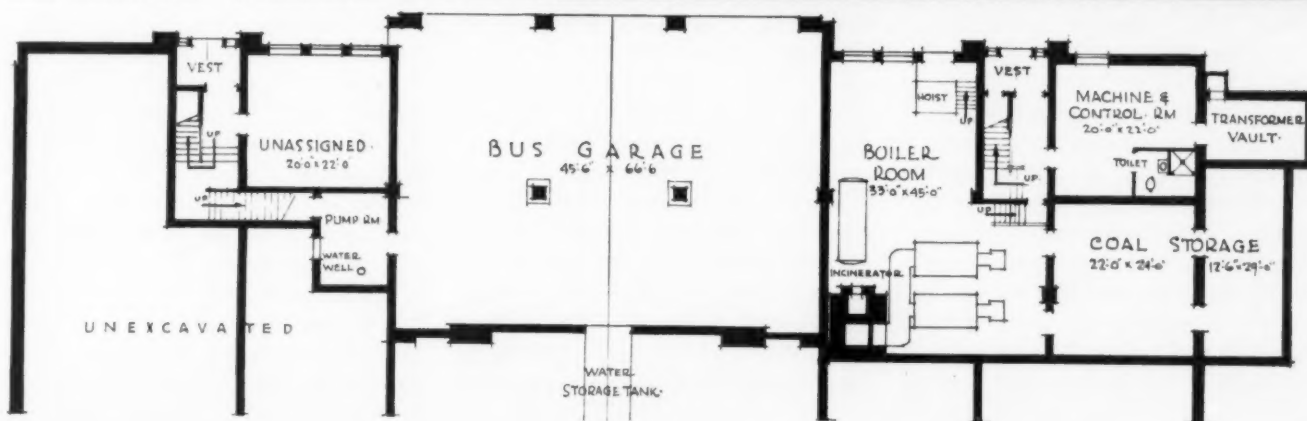
has been reserved and graded for the addition of future games, including handball courts.

The building has been designed to accommodate an enrollment of 180 in grades 1 to 6, inclusive; 110 in grades 7 and 8, and 200 in grades 9 to 12, inclusive, a total of 490 pupils. There are 22 teacher stations, 22½ instructional units and 720 pupil stations.

Construction contracts were awarded on Nov. 27, 1937, and the building was occupied in January 1939. The landscaping and grounds development contract, let in the fall of 1938 and completed last October, was in progress when the photographs were taken.

The building was constructed at a cost of 36½ cents per cubic foot. The complete cost of the project, including land, interest during construction, contracts for construction, equipment, landscaping and grounds development, architectural and engineering fees and miscellaneous expenses, was \$459,487.60. The building was financed with P.W.A. aid.

Right: The slope of the building site to the rear has been turned to advantage by utilizing a portion of the rear basement as a bus garage. The ground floor plan below shows that portion of the basement that has been excavated.



Principal Smith's Progress

EARL HUTCHINSON

Principal, Brewer, Me.

PRINCIPAL SMITH was enjoying his professional career to its maximum. He had sold the community on his progressive ideas and actions on behalf of the vast majority of pupils who were not going to attend college.

In his program of studies he had minimized college preparatory subjects, eliminating Latin, plane geometry and algebra. He had substituted manual arts, home economics and agriculture. He had brought his teachers to emphasize thinking and learning in their classes.

Eager to promote social education among his pupils, Principal Smith embarked upon a vigorous and bold program. In the activity period, during noon hours and Tuesdays and Fridays after school, he had dancing lessons given to the pupils. Music from the school public address system and a gay teacher made this possible.

Bridge Lessons, Slot Machines

The mathematics teacher took a period a week to teach contract bridge. A study of various hands, mathematic possibilities and actual card playing took place in class. Not content with contract bridge, Principal Smith encouraged the mathematics teacher to embark upon an antigambling crusade. Tossing pennies to ascertain laws of probability was tried. Punch boards were punched out by the dozens to show youngsters how seldom they won the desirable prizes listed at the top. The climax came when a slot machine was borrowed from the sheriff's office.

This machine had been seized in a raid and there were more than a thousand nickels in it. Pupils received nickels and tried to hit the jackpot. Needless to say, as the machine was geared to give the house a good percentage, that did not happen often. The back was opened and the gears and wheels that determined the number of nickels returned to

players were demonstrated. This experiment was a success.

The next progressive venture was in the line of sex education. The spring previous, Principal Smith was embarrassed by the knowledge that one of his senior girls was in a family way as she received her diploma. He felt it was time to fight the reoccurrence of this catastrophe.

After thinking over the matter carefully, he decided upon a week's clinic. Special sessions were for girls; others, for boys. He had a doctor, a liberal minister and a woman social worker—all from out of town—explain frankly the nature of sex organs, their use and the dangers of the natural emotions of adolescents. To protect himself, he required pupils attending these meetings to bring slips of permission from their parents.

It was an interesting week. The corridors were filled with groups of giggling girls and boisterous boys who hushed as Principal Smith walked by. He had no way of ascertaining the educational values of this venture, for it was upon a subject that high school pupils did not discuss with adults. He felt it did some good, for he believed that enlightenment produced understanding.

Streamlines Report Cards

Long had Principal Smith considered scholastic ranks a nuisance and an evil effect on the school's objectives. His next step was to eliminate them. He formulated a scheme whereby report cards carried after each subject only "Satisfactory" or "Not Satisfactory." There also was a space beside each subject which would have one of these inscriptions beside it: "the pupil's work shows improvement"; "the pupil's work continues the same"; "the pupil's work is growing poorer." There were no ranks in figures for the semester and the office files showed the same record for each period.

In his speeches at service clubs, at the Grange and at parent-teacher

association meetings, he harped upon his favorite subject, the progressive school.

With each fresh project, Principal Smith swelled with pride. At last he had found an ideal community wherein he was permitted to go ahead and provide children with an education adequate to their needs. But alas, the forces of conservatism and tradition were beginning to awake. There spread rumors that the school had been refused recognition by the state university. The church people were scandalized at dancing, cards and sex education. The fellow who ran the local pool room and who had a back room for other games denounced Principal Smith openly. People wearied of hearing the high school principal talk. They felt he blamed the home too much for their children's misdeeds.

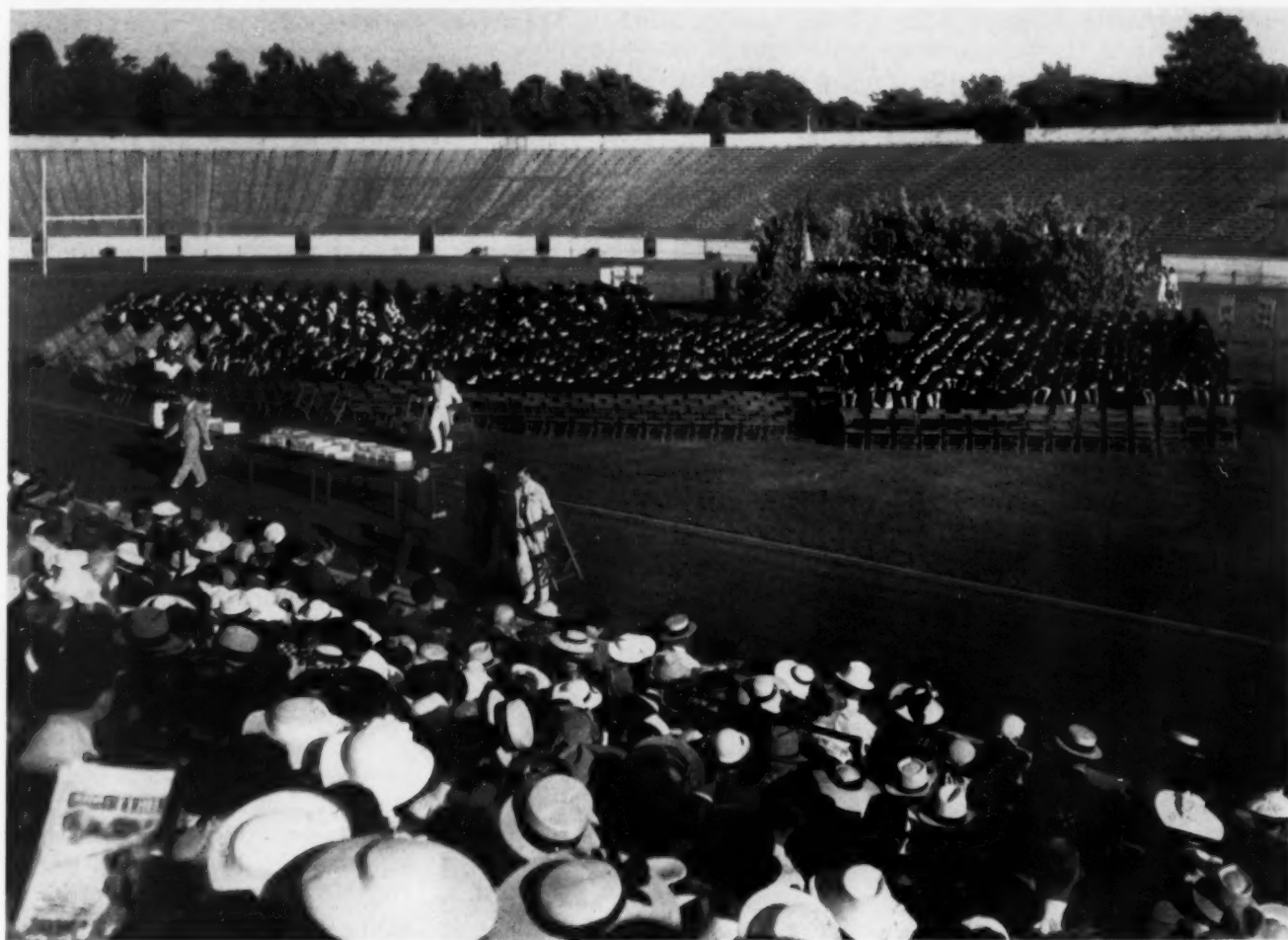
The Storm Breaks

The final stroke came when the son of one of the town's leading citizens could not meet college entrance requirements. When this matter was brought to Principal Smith, he tried to explain that the boy did not have the intelligence to do college work, no matter what subjects he had taken in high school. It was too late then to stem the tide. The little town became a buzz of adverse criticism of the high school program. Too late Principal Smith realized that his too progressive steps had brought about a natural reaction. Nothing he could do but await the trouble to run its course.

Unfortunately, it was now contract time. The board summoned Principal Smith to its meeting and explained that it felt that he had outlived his usefulness there because of local antagonism.

Bewildered, Principal Smith could only remark to his friends and his educational cronies, "I can't understand it. I have worked myself to a frazzle trying to give these youngsters an education suited to their needs—and look!"

Graduation Time Is Here Again



Photograph, courtesy Indiana University

Reitz High School, Evansville, Ind., like Indiana University, holds its graduating exercises in the stadium.

GRADUATION exercises should be considered an important educational event on the annual schedule of the high school. A well-planned commencement not only honors the graduate but dignifies the efforts of the school and enlists community interest in education.

Graduation activities traditionally start with the baccalaureate sermon. Francis Joseph Reitz High School, Evansville, Ind., no longer sponsors a baccalaureate sermon to be attended by the class en masse. The cooperation of the ministers of the city has been enlisted and on the last Sunday before the close of school in June each church honors its members of the graduating classes of all of the city high schools with an appropriate sermon. Thus, each senior

may attend baccalaureate services at his own church.

The commencement committee at Reitz High School consists of both faculty and pupil members. The key committee consists of 10 or 12 faculty members, the senior class sponsors (there are always two, a boy and a girl), several seniors (usually the class officers) and two juniors. Some of the faculty members are retained from year to year, partially to capitalize on previous experience.

This key committee formulates the general plans for the commencement, considers the varied abilities of the class, distributes the responsibilities among faculty and pupils for the

various activities and assigns tasks on the basis of competence. Every member of the faculty is assigned some duty in connection with some phase of the commencement. Subcommittees are charged with the development of the several different phases of the schedule. Important tasks of the key committee are to coordinate the efforts of these subcommittees.

The presence of juniors on the committee aids them in knowing what will be expected of them as seniors the following year. Too, the juniors aid with the general arrangements, such as decorations, and are present as a class at commencement

VIOLA EBLEN

Dean of Girls, Francis Joseph Reitz
High School, Evansville, Ind.

to give the pledge when their president for the next year receives the senior mantle from the president of the graduating senior class.

For some years the graduation program has consisted of senior talent. This has proved far more satisfactory than the guest speaker type of program and is of educational experience and value to the pupils

themselves. A unified-theme type of program with a single main topic is planned and each of the addresses or demonstrations represents a phase of this. Great care is taken to prevent duplication of material. There is a minimum of three pupil speakers, but the number may vary according to the type of discussion and the plans of the committee. These speak-

ers are chosen on the basis of high attainment and development in the general objectives, interests and activities of the school and because they are capable of making a pleasing presentation to the audience; the participant's curricular and extracurricular activities, his contributions to the life of the school, his ideals and attitudes as well as his class work record are taken into consideration.

Music is always a part of the program. The band in uniform plays the processional and recessional. The instrumental and vocal talent of the class are capitalized upon. Only programs representing the highest attainment are used.

Reitz High School is located on a hill overlooking the Ohio River. It is the proud possessor of a stadium, or "bowl," in the side of the hill. The graduation program is held here near sunset time, usually at 5 o'clock. There are generally several thousand people in attendance and the school's public address system is set up to facilitate hearing.

A platform or stage is set up in the bowl, is covered with artificial grass and is banked in the rear and sides with tall branches and lattice work with honeysuckle and other vines; lower shrubs, branches and flowers are placed in front of the platform, giving it a wooded or forest effect. On this platform are seated the participants in the program and to this platform come the seniors to receive their diplomas. Seated in front of this improvised stage is the band.

The graduation costume is the gray cap and gown, which is rented at a small expense, each senior paying his own rental fee. Contracts for all the city schools are let by the school board but each class has the privilege of choosing the material and particular style of cap and gown from those that the contracting company has to offer. Commencement is financed in part by a donation from the school board and in part by the school. Programs are printed in the school print shop.

The commencement is a dignified and formal occasion. It is an impressive sight as the processional appears from over the hill and wends its way down into the bowl, members of the class taking their assigned places.

First Graders Can Participate



LESTER B. BALL

Superintendent, Deerfield, Ill.

JIMMY and Kathryn are first graders. Like most first graders they came to us a little bewildered, a little awed. They brought with them an earnestness and a desire to know about things that are seldom equaled.

Parents smiled indulgently when we informed them that first grade children were on the student council. The parents' attitude has always been that to expect sensible judgment on the part of the little tots is a good sign of the "senility of the teaching profession."

What small children lack in maturity, perhaps, is made up by their attitude toward tradition. Jimmy and Kathryn came to student council with a good idea. "Why should school grounds be covered with paper and trash? If we don't throw

papers in the classroom, then why on the playground?" they reasoned. To the older members in the group this was a new thought. They had taken the playground situation for granted. Not Jimmy and Kathryn.

They brought not only a problem but a solution. The answer was: "Have the school buy several containers for the playground." Unfortunately, the school couldn't afford this. A committee of the first grade appointed by the student council went to work on the job. Jimmy's father runs a grocery store and furnished six large wooden baskets. The bottoms were weighted, the sides were painted. These stand on the playground, now the pride of the first grade class and a symbol to them of how democracy works.

Our One Teacher Schools

Are Ideal for an Activity Program

THE idea that the one teacher rural school is rapidly becoming a "vanishing American" institution is being gradually accepted. There are those who believe that it persists only in small numbers, in the most isolated and backward sections of our country. Recently, at Valley Forge Memorial Park, I noticed an old one room rural school of the Colonial period. No doubt thousands of persons each year look upon this old building as a thing of a bygone era, unaware that there are now probably 50,000 country schools in our nation only slightly more modern in structure and equipment.

Through the process of consolidation many of these small structures have disappeared but fairly recent figures show that there are still 130,000 of them in use. At the rate at which they are disappearing we shall still have a considerable number in 1980.

Rural district instruction is probably the most conservative and traditional type of education found in the American elementary school system. To a great extent, learning consists strictly of memorization, drill and textbook worship. In view of the high degree of isolation and comparative inefficiency, it is not strange that tradition has held fast and flourished in rural communities.

Discouraging working conditions and low salaries in the country are responsible for a continual process of selection that gives to the rural school teachers that are usually either young and inexperienced or poorly trained and unable to obtain promotion.

Poor housing and meager equipment contribute to the characteristic conservatism of the country school. In a situation in which the walls are dark and bare, in which the seats are fastened to the floor, in which there is no library worthy of the name and little equipment except a teacher's desk, a blackboard, some chalk, a bell, a broom and a coal



DEWEY FRISTOE

Supervising Teacher, Division of Rural Education
Illinois State Normal University, Normal, Ill.

bucket, the obvious thing to do is to drill on facts.

General neglect of rural children and the failure to provide the facilities to which they are entitled as potential American citizens are a part of the rural school picture. The land is the chief source of wealth but this wealth for the most part is taken from the farms and exploited by the cities. Not only does the city draw a large part of its wealth from the farms but it also looks to this source for population replacement. In spite of this, in most states the rural communities are required to educate their own children with little or no assistance from the areas of concentrated wealth. Equal educational opportunity does not exist in America and the most neglected portion of our population in this respect is made up of those who are most irreplaceable in our economic life, the farm children.

What a school is and what it accomplishes depend more upon its curriculum than any other factor. In order to understand the one teacher rural school as it exists in thousands of localities today, one must know the characteristics of its aims.

Traditional subject matter and the culture of the past are usually looked upon as being most important in the typical country school, while the

child and his environment are often regarded as only incidentals in education. Instruction is usually carried on with a view to preparing pupils to pass examinations upon subject matter that is not functional enough to be remembered or used after the examination is over.

The typical rural school, with its division into small groups, its numerous subjects, its lack of contacts outside the school circle and the general inclination of teachers to dominate the scene through strict discipline tend to make the rural child an unsocialized individual.

With crowded schedules and a great amount of subject matter material to be covered it is no wonder that the environment and life of the child are usually neglected and often entirely ignored. Trees may grow in the school yard and their buds and flowers and leaves may come and go with no attention being paid to them. Indeed, the child may not even know the names of the species of trees and plants that grow in his community. His school work may be as definitely divided from the life he lives and his interests in the world about him as day is from night.

There is no good reason why such a condition should exist. As a matter of fact a one teacher school is an ideal situation for an activity program

based upon the environment and interests of the pupils. Group effort and cooperative undertakings may be provided for without the rigid classification according to age and grade placement that is necessary in the graded school. Certainly there is no environment or community life that is as rich in natural activities or centers of interest with which children are directly concerned.

Outstanding among the pioneer attempts to abandon the traditional course of study and to formulate a country school curriculum directly from the interests of boys and girls in real life is that of Ellsworth Collings in McDonald County, Missouri.

Revised Rural Curriculum

This county superintendent of schools, conscious of what he calls "the strained, tired and bored expression of the country school children and teachers endeavoring to master the aimless, common, lifeless, disconnected, congested and wasteful country school course of study," set up an experiment that continued for four years, beginning in 1917, to determine whether such a curriculum would be possible or profitable.

The children were placed in three groups, instead of in the standard eight grades. The advantages of this classification are that it means larger and fewer groups and provides a better opportunity for the development of social traits, such as cooperation, fair play and initiative. Each fourth of the day was devoted to a different type of project. There were story, construction, play and excursion projects.

An activity commonly began with an excursion, which suggested associated projects suitable for the other periods of the day. Since the excursion was always an observation and investigation of some real thing or problem, all of the work was related to the local environment and community problems. Recitations were not used but there was much time devoted to conferences on planning, developing or evaluating the procedures.

The results obtained through testing, when compared with those gained in traditional schools used as control units, distinctly favored the informal activity curriculum. Cer-

tain indications of the attitude of parents, changes in community life and changes in the conduct of the boys and girls also emphasized the superiority of the experimental program.

Other efforts to abandon the traditional practices that are so characteristic of the rural school might also be described. Considerable progress has been made, especially in sections favored with forward looking supervisors who have ceased to emphasize the study of factual material and strict, unnatural discipline.

The most important single factor in determining the nature and content of the curriculum of the rural schools in any given area is usually the adopted course of study of the state. Therefore, the best method of improving the rural school curriculum is through modernization of the state course of study or syllabus in terms of the needs of the schools involved.

In the past, state courses of study have told the teacher specifically what to teach and how to teach it. Little opportunity has been provided for the teacher to use her own ideas or initiative.

Requires Teacher Participation

Under such a scheme of organization and administration it has been impossible for any general improvement to be accomplished. The individual teacher with her eyes open to the shortcomings of the situation and ambitious to do things better has found it difficult to obtain any encouragement or recognition of her efforts. The key to the situation is curriculum revision in which all rural teachers have the opportunity to participate and which will eventually lead to the selection of curricular materials suited to the needs of the children in rural communities.

As a result of recognition of the need for modernized courses of study there has appeared in several states a type of liberalized syllabus that does not attempt to enumerate in detailed form just what is to be taught. Instead, certain areas of interest are indicated for the different grades and teachers contribute to the effective teaching of the learning materials included in these different areas. The growth of the individual child and the development of his personality

are the aims of such vitalized programs. These acknowledge that real education cannot exist separate from the community in which the school is located.

The state of Virginia issued a syllabus of this type five years ago. It conceives of the aims of education as emotionalized attitudes, generalizations and special activities. It lists the major functions of social life as protection and conservation, production and distribution, consumption, communication and transportation, recreation, expression of esthetic impulses, expression of religious tendencies, education, extension of freedom, integration of the individual and exploration.

Do Not Attempt Rapid Change

Teachers are cautioned to employ only materials that fit their situations and to keep in mind the general growth of boys and girls. Suggestions are given for planning units but no examples are presented. Reports from the state would indicate that the greatest weakness of the program has been the fact that it attempted to change teaching procedures almost overnight. As a result many teachers, especially in the small districts, have been unable or unwilling to carry out the suggestion. This does not mean that the course is not a good one but it does indicate that it is possible to move too rapidly in the process of change.

Other states are working upon the same problem and have made considerable progress. A modern program is not always accepted immediately and in some instances it has had a discouraging reception.

In some cases this is due to the fact that it has been superimposed by groups that do not know conditions at first hand. In others it has been instituted before a real demand for it has developed. Inadequate supervision and the tendency to move too rapidly are common causes for grief. There has even been a surprising disregard for the necessity to distinguish between content and tool subjects in the organization of such a program and this has evoked protest. In spite of these and other errors, the movement is going forward and in a few years should accomplish remarkable changes in the curriculum.

Who Should Handle Placement?

SPENCER D. BENBOW

Coordinator of Placement
Public Schools, Oakland, Calif.

SHOULD the public service develop a complete program of guidance and placement or should the public schools assume the responsibility of guiding and placing our youth?

This puzzling question is facing many school administrators at present and will present itself to many more in the near future. The question is especially difficult to answer in those communities whose public schools have developed programs of guidance and placement, functioning adequately and efficiently. Because of the entrance of the United States Employment Service into the field of junior employment, as provided for in the Wagner-Peyser Act, the question of who should handle placement or who is to handle placement must be met and settled by school administrators and public service officials.

In Favor of the Schools

The public schools, knowing their children, their abilities and lack of abilities, are in an advantageous position to administer junior placement. Certainly, a knowledge of the person to be placed is most essential. In addition to knowing its product, the school appears the more logical agent to carry on junior placement because of its established place in the community, its knowledge of community needs and the large number of placement units that could be readily established. Every community or rural area, no matter how small, has a school.

Since our school system is a decentralized one, it would be extremely difficult to carry on a coordinated program of guidance and placement throughout the country. Here and there schools have done an excellent job of assisting youth into adult life but such instances are not general. A good program of guidance and placement, to be effective for all our children, should be planned and executed on a nation-wide scale.

One objection to the school placement plan is the criticism that our

schools and school teachers are too far removed from business and industry, that they are not up to date, that they are impractical, that they are not businesslike and that they are too theoretical. Much of this is untrue, yet the impression lingers in the minds of employers. Whether or not the schools can obtain the necessary financing more easily than some other agency is an important question, for the success of the venture depends in great part upon the adequacy of financial support.

On the other hand, it is evident that junior placement operated by a national public employment service would have several advantages. In the first place, such a service could be national in scope, planning and execution. It would cover the entire nation, not a few isolated centers. A coordinated program would be possible. Thoroughgoing research into job analysis, worker analysis, occupational trends, job requirements, unemployment and job "aptitudes" would be possible.

It is also likely that sufficient funds would be more readily available if attempted on a national scale, considering the present trend toward social legislation and expansion of governmental efforts on behalf of the individual. Furthermore, the public employment office counselor engaged in placement all day long should be closer to the business and industrial world than the classroom teacher, with a better understanding of business requirements, thus being better qualified to do a successful job of placement.

Against a Public Agency

The disadvantages of junior placement operated by a public employment service are as follows: (1) the public employment service is too far removed from the school; (2) it cannot know intimately the abilities, backgrounds and interests of children as can the school. A large employ-

ment office attempting to handle all comers cannot render the personalized and individualized service that it is possible to render with a smaller office.

There are several practical considerations that have an important bearing on the problem of who should operate a junior employment service. Many schools have developed good programs of guidance and placement, which have been functioning successfully for years. Contacts have been built up with employers, employers are satisfied with the service given, personnel has been trained on the job. To consider the installation of a public employment service in the area served by this type of school is to bring forth many problems.

A Possible Solution

Possibly the best thing to do in such communities is for the public service to subsidize and expand the existing school service, with control continuing in the local board of education. Reports and records could be made to fit into the national scheme. Research could be carried on separately or in cooperation.

Another practical consideration is the bad reputation "enjoyed" by the public employment service in many areas. Before the recent expansion of the service through the United States Employment Service, many state and local services were held in disrepute by employers and public generally. Much has been done to overcome this reputation since the entrance of the U.S.E.S. into the field after the passage of the Wagner-Peyser Act, but there is still considerable salesmanship needed before employer and public acceptance is general.

A public service would naturally serve all youth, whether in school or out of school, whether in parochial, private or public schools. There is no reason why the public schools

could not do the same thing but the natural tendency is to take care of public school children and to forget the children not in school, as well as those in parochial and private schools.

Also in favor of the public employment service is the fact that the schools, although having had sufficient time to develop a comprehensive program of placement, have neglected to do this. Some form of federal or state control, influence or subsidy appears to be necessary, if we are to have a service that reaches all youth.

Temporary and part-time employment service presents another practical problem. Our schools find it easier to handle this type of employment than does the public employment office. Perhaps the part-time employment service should be continued by the schools, even though the public employment office handles full-time employment.

One solution to the problem is to let the public employment service care for persons over 21 years of age and the schools care for those under 21. This would seem a reasonable solution and is the usual situation at present wherever the schools have developed a placement service. The

trouble with this arrangement is that there are unavoidable overlapping and duplication of effort by two tax-supported agencies. The two services compete for employer contacts, both sending representatives into the field to call on the same employers. Both are frequently spending time working on the same employer request, interviewing the same person, keeping records on the same employers and applicants.

To separate the junior and adult employment service arbitrarily at 18 or 21 or 25 sounds feasible but it just does not work out in practice. The service must be a unified, all-inclusive one, although it is possible for the general direction and support to come from several agencies.

The matter of adequate financing is all-important. If the schools are able to supply the necessary funds to do an effective piece of work and if the public employment service cannot, then the schools should assume the job. If the public employment service has sufficient funds available or seems to be in a better position to obtain the funds, then the public service should do the job. It appears likely that the public service will be able to obtain adequate financing, in line with social legislation trends.

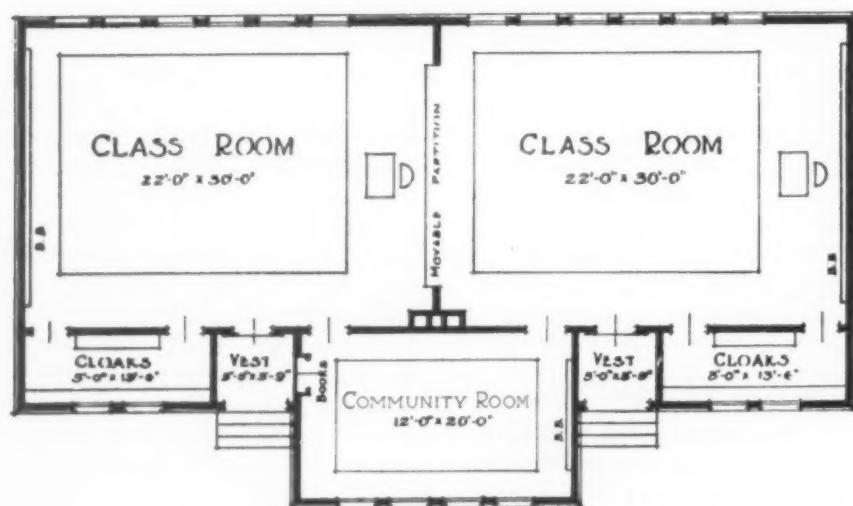
There is no final answer to this question of who should operate junior placement. Experiments now being carried on by the U.S.E.S. may help to decide the issue. The public employment service as now organized stands in a position to do a thorough and comprehensive job. Assuming that the public employment service should be responsible for junior placement, the following description of a unified but cooperative service might be recommended for consideration.

As both the public service and the schools are interested in the guidance and placement of youth, both should participate in such a program. Let the public service (state and federal) be responsible for the program, thus obtaining the benefits of nation-wide operation, with the schools participating in the actual operation according to their ability. Research could be carried on by the public service, its findings to be used in the employment offices and the schools. Forms and records could be standardized for statistical purposes.

In small communities the schools could assist by assigning an employment counselor to the local public service office. In medium sized and large communities, where a complete junior counseling service is justifiable, the schools could be responsible for this phase of the placement work, operating the testing division as part of their work. In addition, the schools could supply the general placement division with part of the personnel. Placement, both for adults and juniors, could be handled in the same office. Juniors would have the extra aid of the junior counseling division to help them. The junior division could make employer contacts (first clearing through a field visit clearance division), calling on employers who employ or might employ juniors. The counseling division could assist the placement division by recommending individuals for particular jobs, when requested. The junior division could assume responsibility for followup of juniors placed on jobs.

Such a plan calls for cooperation between public service officials and school officials, if it is to be successful. If cooperation is not likely, the plan should not be attempted.

Two Teacher Community School



This two teacher Rosenwald school provides a community room, which may be used for group meetings, improvised health clinics and home economics. To furnish flexibility in the size of rooms to meet new educational ideas, each Rosenwald plan is so arranged that rooms may be reduced or enlarged.

Pupils Assist the Teacher

G. G. STARR

Superintendent, Arcanum, Ohio

IN SUBJECTS, such as mathematics, in which future operations are dependent on present and past knowledge and skills, what can be done to ensure sufficient mastery for all members of the class? Because of individual differences many of the class will have mastered the necessary essentials in a short time while others will have obtained only a meager idea of the processes.

During the last five years I have attempted several solutions to the problem in algebra classes which I have taught in a small village high school at Arcanum, Ohio. As the number of pupils was small, making sections impossible, it was necessary to have all the pupils in one class.

Several methods of instruction that were adaptable to group instruction were considered and tried in place of individual instruction, because of the text material available and because of a desire to obtain the benefits derived from group participation in an activity.

In considering the problem of individual differences in learning rates, the following possibilities presented themselves: (1) proceed at a rate suitable for the average pupils, fail the slowest pupils and allow the brightest pupils to do some loafing on the job; (2) travel fast enough to keep the best pupils busy, give the average pupils poor grades and fail the slowest ones; (3) spend enough time on each process until the slowest pupils have mastered it while the rest of the pupils spend valuable time in anxious waiting.

All three of these methods, which deal with rate of progress, were tried with unsatisfactory results. In each case there was a loss of valuable time or insufficient mastery for satisfactory progress for a large number of the class. It would seem, then, that some method, whereby better individual progress could be made would be the only solution.

To meet this condition, attempts were made to assign variable



Pupils who have mastered the lesson assist those who are having trouble.



In algebra complete mastery of fundamentals is necessary to progress.

amounts of work to different pupils. For example, the most capable were required to work 15 problems, the average, 10 problems and the slowest, five problems. Although this scheme appeared ideal in theory, it provided more practice for those who could do the problems correctly and less practice for the slowest who had the greatest difficulty. The result in many cases was 15 problems right for the fast group and five problems wrong for the slowest group.

While it was true, perhaps, that the latter procedure was better than any of the first methods, which were based on the rate of progress, the result was still unsatisfactory. At present I am experimenting with a method in which the pupils who have mastered the process assist those who are having some difficulty.

In algebra, as well as in many of the other mathematical subjects, complete mastery of certain fundamental operations is necessary before satisfactory progress can be possible. Each succeeding process is based on the preceding work. For example, a lack of the knowledge of signed numbers is continually a stumbling block to success. Thus, adequate knowledge and a definite degree of skill of operation are an absolute necessity for the pupil to do future work. The procedure described is an attempt to impart this knowledge and to develop a certain minimum of skill in each member of the class.

As the method calls for observation of the work of pupils on the blackboard during the regular classroom period, a room at the Arcanum School, which has been designated as the mathematics room, has been provided with ample blackboard space. In this room, materials and supplies are stored for the different classes in mathematics.

At the opening of each class period, time is taken to answer any questions that members of the class have concerning the work for the day. Next, all pupils are sent to the board to work problems with each one being asked to write his name

at the top of the board. After a reasonable length of time the problem with its solution is read and explained. Pupils having the problem solved correctly make a check after their names. The number right is carefully noted by the instructor.

This procedure is continued until at least one half have an understanding of the process involved. Then these pupils are appointed as teacher-assistants to aid the others who are having some difficulty. These pupils stand behind the others, who attempt more problems, with instructions to observe and to give help only when needed. The plan is to determine the difficulty experienced.

Some of the instructions given to the helper are: "Watch the pupil work and see if you can locate the mistakes made." "Attempt to explain how to do the work correctly." "Do not work the problem for the pupil." Suggestions to the pupil having difficulty are: "Make a sincere effort to work the problem." "Ask your helper to explain any operations you do not understand." "Finish the problem after it is explained to you."

These pupils continue to work with the number correct being noted in each case by the instructor. As soon as all pupils understand the process and are able to solve the

problems, a new operation is assigned and the procedure is started again with all pupils working the problems. In cases of serious difficulty pupil assistants and those needing help are given opportunity for a conference during a free period.

Considerable preparation should be made to produce a wholesome atmosphere before this method is attempted in any class. Pupils should be made to feel that they will not be penalized because of assistance received from others in the class. Members of the class should not feel that it is a disgrace to receive help from other pupils and care should be taken that this assistance is not used as a crutch for their own lack of effort. Pupil assistants should not feel that this service is a guarantee of excellent grades.

Unless a correct attitude is developed pupils will be hesitant in acting as pupil helpers; likewise, those who need assistance will not avail themselves of the opportunity for help.

Some advantages of this teaching method indicate a more complete mastery by all pupils. Most teachers will agree that, as beginning teachers, they mastered their subject matter better than they did as pupils. Critical observation of someone else and explanation of the principle to someone else have cleared their own thinking. Practice has shown that the pupil who is being helped also receives valuable assistance. Pupils of the same age often have an ability to explain something to their classmates in language that is readily understandable.

Here we find cooperation expressed in its highest attributes. Pupils are anxious to see their fellow classmates progress. The psychological principle that one becomes interested in the person he helps becomes operative.

In the light of the present emphasis that is being placed on a democratic atmosphere, this method suggests favorable values. To some this procedure may be difficult to operate because it differs from the formal class. More noise and confusion may be present, more guidance and suggestions may be necessary, but the method evinces results that are worthy of consideration and trial.

Wherein Junior Colleges Fail

B. LAMAR JOHNSON

Dean of Instruction, Stephens College

AT FIRST thought, increasing junior college enrollments may appear to be startling. There are now 575 junior colleges enrolling almost 200,000 students. However, further consideration leads to amazement—not that junior colleges enroll as many as 200,000 students—but that junior colleges do not enroll many times that number. With a history that extends over four decades, with four millions of youth out of school and out of work, why do we today have less than 200,000 students attending junior colleges? The answer to this question is not difficult to find. It lies largely in the type of curriculum found in the junior colleges of the nation.

It is easy to understand why less than one sixth of the high school graduates of this community enroll in the junior college. The curriculum simply does not meet their needs.

In a study of 153 junior colleges in all sections of the country, it was found that approximately four fifths of the students are enrolled in college preparatory curriculums.

Not only does the college preparatory aim dominate the junior college curriculum, not only does this dominant aim exclude from junior colleges millions of youth who need not college preparation but life prep-

aration, but college preparation even fails to serve the needs of the few who enter junior college.

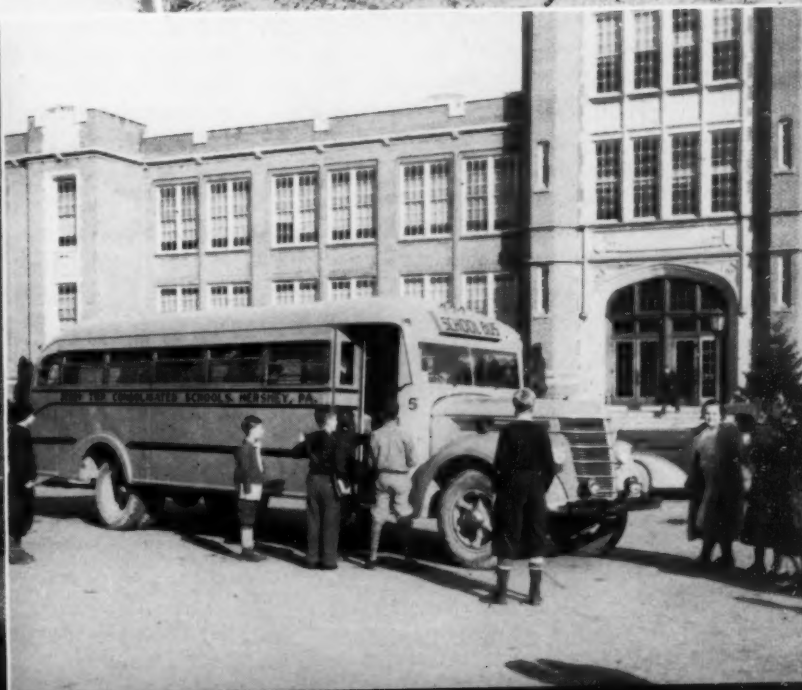
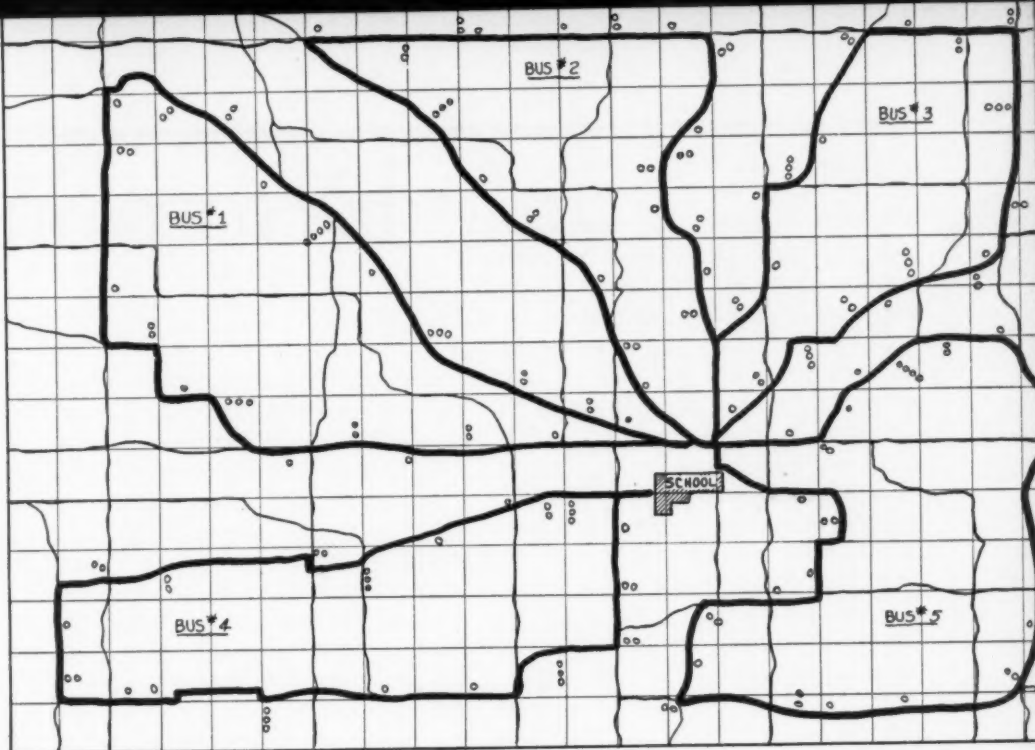
What causes this inadequate recognition of the needs of youth in the junior college curriculum?

One reason for the continuing dominance of the college preparatory courses is domination of the junior college by the university. A second reason for the failure of junior colleges to offer courses adapted to the needs of youth is the inadequate financial support of the junior college. Third, it is easier for the junior college dean and his staff to provide a course of study that apes that of the first two years of the usual arts college than it is to build new courses planned solely in terms of student needs. New courses require a study of student needs and the development of new materials and methods that meet those needs.

There is a fourth reason and, in my opinion, an undemocratic one: to plan courses in terms of life needs is simply not respectable. The junior college that does not stress preparation for advanced academic or professional work but emphasizes training and experience in healthful living, intelligent citizenship and vocational preparation is looked down upon, not merely by scholars but by large numbers of our population.

Portfolio of

PUPIL TRANSPORTATION



Determining Costs

C. D. HUTCHINS

THE number of transported pupils per square mile has been shown to be closely related to the unit cost of pupil transportation. Inquiries made in various states reveal that the cost per child is low in densely settled districts and high in areas in which transported children are widely separated. This is reasonable in view of the fact that gathering widely scattered pupils is much more difficult than transporting them from densely settled areas.

This relationship between the density-sparsity factor and the cost of transportation is useful to administrators in forming opinions of reasonable budgets for pupil transportation. It is especially useful in the distribution of state funds for local district transportation programs since, in the administration of such funds, it is necessary to use a standardized procedure in determining reasonable costs of transportation in all the school subdivisions of the state.

The close relationship between density and the cost of transportation persists regardless of the type of school organization. States having the county system, as well as states having the district system, find high correlations between "transported pupils per square mile" and "per pupil costs of transportation."

The relationship between population density and transportation costs should not be interpreted as meaning that density influences the cost of transportation in some mysterious way. A definite causal relationship between density and costs might be difficult to prove and it need not be attempted. Instead, it should be observed that certain conditions go along with density, which may affect the cost of transportation more directly.

For instance, it is apparent that "number of stops" would have a causal relationship to cost. Each stop and start produces wear and tear on the brakes, engine, transmission and tires and requires more gasoline than would have been required if the stop had been omitted. Homes, stop lights, intersections and railroad crossings requiring stops are concentrated in densely settled areas.

The condition of the roads is also associated with density. Good roads are to be found in densely populated areas because there are many to demand them and poorer roads prevail in districts having the homes widely scattered. Mud roads and hills produce more wear and tear on the vehicle, shorten its life, increase maintenance and repair costs and increase the consumption of gasoline and oil, all of which expand the cost of transportation.

A third factor, "value of equipment," is also related to density. Near villages and cities the equipment appears to be newer and more adequately maintained, showing evidence of more frequent servicing, washing and painting. Used buses are purchased by contractors working in the rural areas where the bus is infrequently seen and there are not as many reasons for pride in the appearance of the bus.

Larger buses are used on the good roads in populous communities while smaller vehicles are necessary to travel the poor and narrow roads in the sparsely settled districts. Large numbers of pupils per vehicle produce low unit costs of transportation. It is evident that "size of vehicle" will account for an additional portion of the relationship between density or sparsity and cost.

The wages paid to the bus drivers are generally higher in the densely settled communities. This higher wage is a part of the cost and consequently improves the relationship between density and the cost of pupil transportation. Thus, it is apparent that while density itself may not directly affect the costs, yet there are many conditions which vary with density and which do produce changes in the unit cost of transportation.

To recognize density and to calculate reasonable budgets for pupil transportation in terms of density have the effect of recognizing not density alone but a host of factors. Several states are taking advantage

of the relationship between density and cost for the purpose of estimating reasonable costs of pupil transportation for the various subdivisions, and even in predicting costs of pupil transportation by districts as a basis for the distribution of funds.

Alabama is using the density-sparsity condition as the chief consideration in distributing state money to the various counties for the trans-



Sixty passenger bus owned by Kooskia

portation programs. In that state the amount allowed per pupil depends upon the density situation. Density is determined by dividing the number of transported pupils who reside more than 2 miles from school by the number of square miles in the district, minus 12 square miles for each school site. Twelve square miles is subtracted because this is approximately the area of the circle of 2 miles radius from which pupils are expected to walk to school.

The table for determining transportation allowances to the counties of Alabama gives a different amount per pupil for each density condition.

of Pupil Transportation

Auditor, Ohio State Department of Education

For instance, it allows 15.5 cents per pupil per day to districts having one transported pupil per square mile and it allows 7.4 cents per pupil per day if there are five transported pupils per square mile.

States organized into large school units, such as the county units in Alabama, do not find it necessary to recognize other factors related to cost of pupil transportation. Larger

counted who reside within 2 miles of the school and the area served is considered as the area which is within 2 miles of the bus routes.

The distribution plan allows a cost of slightly more than \$10 per pupil per year in the densely settled districts and up to approximately \$35 per pupil per year for the least settled area. The total effect of using this distributive plan is to establish density as the only factor used in calculating approved transportation costs per pupil.

There are sufficient authority and willingness in Florida to recognize conditions of roads and other factors but the county district organization seems to equalize conditions among the counties with respect to such factors.

Ohio, unlike Florida and Alabama, does not have the county system of school organization. Instead of 88 school districts, one for each county, Ohio has 1733 districts having an average area of about 23 square miles. The larger number of school districts into which the state is divided produces exaggerated extremes on any of the conditions related to the cost of pupil transportation.

For instance, one school district in Ohio may have extremely poor roads, while another district in the same county has hard-surfaced roads. Under the county system, the average road condition for the county would be considered and these extremes would be lost but, under the district system, the extremes persist and it is essential to recognize "condition of roads" in addition to density.

Similarly, other factors require recognition in calculating a reasonable cost to recommend for pupil transportation to be included in the calculations of the state money for the various school districts of the state. Ten such factors were found to be significant in their relationship to costs of transportation and are used in the present program. They

include (1) density, (2) number of transported pupils in the district, (3) road condition, (4) pupils per vehicle, (5) investment per pupil, (6) trips per bus, (7) percentage of capacity utilized, (8) percentage of buses owned by the board, (9) percentage of forward facing seats and (10) number of bus miles per square mile.

The use of 10 factors in Ohio greatly increases the accuracy in predicting the right cost for any district. The extra time required to include 10 factors is not difficult or prohibitive, only four minutes being needed to complete the normal calculation for each district of the state, once each year. While 10 factors are used in Ohio to obtain greater accuracy it must be admitted that the factor density was found to have a closer relationship to cost than any of the other nine.

An article in the January issue of *The Nation's Schools* by Dr. Julian E. Butterworth refers to the many factors affecting costs of transportation and concludes that "length of the haul" and "number of pupils per vehicle" are the dominant factors. These two factors are significant but it is to be observed that they are important phases of density.

It is readily conceded that the relationship between density and cost of transportation might be slight and unreliable in areas having mountains, deserts, forests, lakes and other uninhabited areas but for states like Ohio, in which geographical features do not greatly interfere with the establishment of homes, the relationship is found to be close and reliable. It is not maintained that density by some unknown magic determines costs but rather that a host of factors, such as road condition, size of vehicle, pupils per bus, investment per pupil, number of stops, extra trips and wage scale, which do affect costs, accompanies or is regulated by density. Accordingly, superintendents can make use of this relationship between density and cost in recommending, questioning and estimating the pupil transportation budget.



School District, Idaho County, Idaho.

school units tend to show an average situation and thus to conceal extreme conditions.

Florida also uses the single factor of density in distributing money for pupil transportation but it is not applied in the same manner as in Alabama. The amount of state money for pupil transportation for any county in Florida is based upon a calculated number of equivalent teaching units. An analysis of the method of determining these units indicates that the state recognizes and allows \$10 per year for each pupil transported, plus \$15 per square mile of area served. No pupils are

Planning for Transportation

W. A. OBUCH

Director of Transportation
Oklahoma Department of Education

SECTION A

Indicates Exact Location of School
Give name of School.

Driver's Home.

Bus Garage.

Paved Road. Indicate with black line.

Graveled Road.

Creek.

River.

Railroad.

SECTION B

Do Not Write in This Space.

SECTION C

Draw map so that arrow points North

Indicate direction in square.

Legend:

- Solid lines indicate section lines. Short lines inside squares indicate half-section lines. Place Section Number in north-east corner of each section.
- Solid red line indicates district boundary line.
- Dotted red line indicates boundary of transportation territory (outside of district) served by buses.
- Solid green line indicates area annexed to or detached from district since June 30 of previous year.
- All bus routes are to be indicated by heavy blue lines.
- "Hilly", "Very Hilly", or "Mountainous" written across map in various places indicates general topography of district.

Bus No.	Route Nos.*	Driver's Name
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*If bus makes more than one route, give number of each.

A plat of bus routes may be drawn on a section map using the accompanying key.

THE school administrator who is contemplating the providing of transportation or who has already incidentally established this service would do well to study its many phases as thoroughly as he would the planning of a building program or a change in school organization.

To the inexperienced the problem may appear to be merely that of procuring a vehicle, a driver and

pupils to transport and of providing for contractual obligations in the budget. Such a nonchalant attitude is the forerunner of budgetary disruption and administrative adversity.

A study of school transportation costs in Ohio shows that at least 70 factors are involved in cost accounting alone, and other phases of transportation reveal a comparable number of interlocking component

parts. These various aspects tend to group themselves into six major divisions: (1) safety, (2) quality of service, (3) accounting, (4) standardization of equipment and operation, (5) managerial policies and (6) legal provisions.

In his study of transportation costs in Ohio, C. D. Hutchins found that the greatest causes of fluctuation in per pupil costs were: (1) number of pupils transported, (2) density of pupil population and (3) condition of roads. Since the studies of transportation costs in other states bear out Hutchins' conclusions, the administrator's first task in the organization of a transportation system is to make a careful and detailed study of pupil population and road conditions in the area to be served.

Even though the transportation area is defined by the state, the authority for laying out routes is generally given to local officials.

When the area to be served has been determined, a plat or map of it should be drawn to scale, showing all pupils' homes, passable roads, railroads, streams, bridges, fords, hills, mountains and any topographical features peculiar to the locality. To the left of the legend used to indicate the home of the pupil, place a figure indicating the number of high school pupils to be transported and on the right of the legend a number to indicate the number of elementary pupils to be transported from that home.

Next make a survey of all roads that may possibly be used for bus routes. Indicate the kind of surface on each, as loose sand, clay, sandy loam, black top or concrete slab. Descriptive notes should be added, as "very bad in wet weather," "sand, good in wet weather, difficult in dry weather," "black top, slick when wet," "steep hill," "narrow road bed," "dangerous railway crossing," "blind crossing," "trail, maintained occasionally," and any others

that may be helpful to the administrator in laying out the routes.

The administrator must now determine the type and number of transportation routes necessary to serve the pupils whose homes are indicated on his area plat. By type of route we mean "circular" or "shoestring," as defined by Ward G. Reeder. "The circular route may be described as one which begins near or at the school, and, of course, ends at the school. The shoestring route is one that begins at or near an outer boundary of the district and proceeds toward the school, collecting first those children who live farthest from the school." The necessity for "feeder routes" must also be determined. This is the term for short supplementary runs made by passenger cars or vehicles of small capacity, to bring pupils to the main bus line from areas that cannot be reached otherwise because of road conditions or excessive costs.

In determining bus routes, cost alone should not be the decisive factor; the safety, comfort and convenience of the child are to be kept in mind. When it becomes necessary to make safety subservient to cost, it would be better not to transport the child. The bus should be so routed that no child must ride longer than one hour. Waiting stations should be established for the convenience of more than one family if possible and at points that will ensure the greatest degree of safety both to the child and to transportation equipment. The school authorities in cooperation with the parents should provide some form of shelter at the places of embarkation and debarkation.

The bus routes having been determined, one or two trial runs should be made with the bus for the purpose of working out a time schedule for each stop, as well as the hour at which the driver must leave home in order to pick up all children and reach the school building with a fair margin of time between his arrival and the beginning of the day's session. The trial runs should be made on days when weather and road conditions are most favorable, so that the fastest schedule possible will set the standard for the children's promptness in meeting the bus, thus eliminating the habitual fear of miss-

Check List for Use in Planning Bus System

SAFETY OF PUPIL

- Purchase of equipment
- Employment of drivers
- Selection of bus routes
- Avoidance of traffic congested highways, railway crossings and narrow bridges
- Development of loading and unloading methods
- Determination of maximum speed
- Maintenance of discipline
- Prevention of overcrowding
- Regular inspection of equipment
- Training in safety habits

QUALITY OF SERVICE

- Time schedules
- Type of conveyance
- Speed of travel
- Type of seat
- Ventilation and temperature of vehicle
- Distance child must walk to bus stop
- Protection while waiting for bus
- Distance child rides
- Child's sense of security and confidence in driver's ability

ACCOUNTING

- Equipment costs
- Replacements
- Garage and storage
- Repairs
- Fuel
- Length of routes
- Road conditions
- Weight of equipment
- Number and size of pupils transported
- Insurance
- Weather conditions
- Salaries
- Area
- Density of population
- Topography
- Seating space
- Depreciation
- Number of trips made
- Distance each pupil rides
- Administrator's time

STANDARDIZATION OF EQUIPMENT AND OPERATION

- Standards of width, length, height and color of bus
- Weight distribution, aisles, seating capacity and arrangement
- Safety devices
- Glass, fuel and lubricants used
- Qualifications of drivers and their handling of equipment
- Loading and unloading of children
- Methods of reporting
- General routine work

MANAGERIAL POLICIES

- Publicly owned or privately owned buses
- Publicly owned fuel pumps and storage space or daily service at privately owned stations
- Transportation of children within walking distance of school
- "Front door" service along the route
- Liability and property insurance
- Construction of storage room and repair shop
- Use of buses for other school and community activities
- Number of pupils permitted per bus
- Area to be served
- Basis of wage scales
- Seating arrangements in buses
- Employment of drivers

LEGAL PROVISIONS

- Certification of drivers
- Construction and types of equipment used
- Crossing of railways and arterial highways
- Walking distance to school
- Passing of buses by motor vehicles
- Color of buses
- Provisions for financial assistance by state
- Use of equipment for purposes other than transportation of children to and from school
- Granting of regulatory powers to agencies of the state.

ing it. When the time schedule has been worked out, all children and parents should be given notice of the hour at which the bus will arrive, both in the morning and in the afternoon, and the driver should never leave a waiting station until the proper time indicated on his schedule, unless he can account for each child who should meet him at that stop.

Having determined the length of the route, the condition of roads to

be traversed and the number of stops to be made, and having made a check of fuel consumption on the trial run, the school administrator can determine within fair limits the probable cost of operation on each route.

"Eternal vigilance" with respect to supervision and accounting in all of their phases and the cooperation of school authorities, drivers, children and parents are the price of safe and efficient transportation.

Should the School Own Its Buses?



This 12 passenger vehicle is used as a feeder bus. In planning routes, school ownership is an advantage because of flexibility in schedules.

F. RAY POWER

Assistant State Superintendent, West Virginia

WHEN one considers the problem of establishing pupil transportation facilities in a school district, he can understand why many boards of education first began this service by contracting for buses owned by individuals or corporations. The lack of experience in this field, the lack of funds and a limited concept of the services to be provided were influences that had a direct bearing on the adoption of the plan of using privately owned buses.

National statistics show that at present close to two thirds of all pupils are transported in privately owned buses. However, there is a definite and substantial trend in the direction of school ownership. Schools would not be rapidly purchasing their own buses over the protest of private owners if they did not have good reasons for it.

The fact that pupil transportation is a definite part of the educational program is clear when one considers the nature of this service. Transported pupils spend from four to six hours under the supervision of teachers. They spend from one to two hours riding buses under the supervision and care of bus drivers. The pupil activities that must be super-

vised in connection with transportation in some instances have greater significance than those that go on in the classroom.

In planning bus routes, utilization of buses and schedules of operation, school ownership offers a distinct advantage. Privately owned buses usually operate on a fixed route at a definite rate of pay in accordance with a written contract. The setup cannot be as flexible as under the school owned plan.

The procurement and maintenance of safe buses are more likely to be achieved when the school owns its buses. At the time of purchase, responsible school officials have an opportunity to check specifications for chassis and body and to see that they meet minimum state and national safety standards. When individuals and corporations do the purchasing, school authorities do not usually have this opportunity. Because of the private purchaser's desire to make as much profit as possible on the operation of his bus, he is tempted to purchase a bus that does not come up to minimum safety standards. The school does not have to figure on an operating profit and, therefore, is not so likely to sacrifice

safety in the interest of economy at time of purchase.

A school district, through the maintenance of buses in its garage, can have assurance that each bus is in first-class mechanical condition at all times. Such assurance cannot be had by the school for privately owned buses. Again, the pressure is strong on the contractor to avoid making repairs in order to save expenses. The school can have its buses inspected daily and repaired when needed in its own garage at little increase in cost.

With the rapid increase in the number of pupils who are in need of transportation, many districts are faced with the problem of providing transportation at a cost that the taxpayers can afford to pay. A great majority of the studies of transportation costs show that school owned buses are operated more cheaply than are privately owned buses.

Since schools usually buy more buses than an individual contractor, they are in position to buy at a more favorable price. Moreover, many districts may legally avail themselves of the services of state purchasing departments, and this gives the additional price advantage of quantity purchasing. Many individuals purchase buses on the installment plan and pay for them as they receive pay for transporting pupils. By doing this, they pay the full retail price plus a heavy carrying charge. When a school buys for cash, it avoids paying the carrying charge and may sometimes get a discount.

The school is usually free from all fees, such as license tax, gross sales tax and other charges. Also, it can frequently take advantage of state contract prices on gasoline, oil, tires and repairs, which represent a saving of from 25 to 40 per cent on purchases of supplies.

Naturally, the question of ownership cannot be answered for all schools in an absolute manner without reservation. It appears, however that under similar conditions and circumstances the plan of school ownership of buses has distinct advantages over private ownership.

Standards for School Buses

THE National Conference on School Bus Standards held at Teachers College, Columbia University, in April 1939, under the sponsorship of the National Council of Chief State School Officers, demonstrated, first, that national, uniform and minimum standards governing school bus construction and equipment are a necessary part of a sound program of pupil transportation.

Second, the conference revealed that national standards for school buses are best achieved through the cooperative action of the 48 state education departments, working in collaboration with other interested agencies of the state and national government and with experienced automotive engineers from companies manufacturing school buses and school bus equipment.

Third, the conference developed and adopted a list of the characteristics of acceptable standards.

Fourth, the conference classified motorized vehicles for the transportation of school children into two major types: (1) vehicles transporting 24 or more pupils and (2) vehicles transporting less than 24 pupils. The conventional model of bus was designated as the only model suitable for transporting loads of 24 or more pupils. Panel conversions and suburban models, not station wagons, were recommended for the transportation of less than 24 pupils. The standards adopted by the conference, however, were for conventional models with the understanding that spatial adaptations must be made to govern the construction of smaller vehicles.

Fifth, for buses of the conventional type, the conference developed and approved a total of 43 standards, 17 of these applying to bus chassis construction and 26 applying to bus body construction.

Sixth, the school bus chassis standards, as developed and approved by the conference, include detailed specifications for the following items: (1) axles, (2) battery, (3) brakes, (4) bumpers, (5) exhaust pipe, (6) frame, (7) gasoline tank, (8) gener-

ator, (9) governor, (10) guards, (11) overall length, (12) passenger load, (13) power or grade ability, (14) speedometer, (15) steering gear, (16) tires and (17) weight distribution. Although space does not permit the complete reproduction of the chassis standards, the following comments may be introduced:

Detailed specifications cover all major parts of a school bus chassis. They constitute a definite guarantee of safe chassis construction. For example, the exhaust standard includes provisions to the effect that the exhaust pipe shall be entirely outside the bus body and shall extend beyond the external rear of the body at the point of projection but not beyond the bumper. The frame standard provides that extensions of frame lengths are permissible only when

such alterations are behind the rear hanger of the rear spring.

The detailed specifications are a guarantee of economical chassis construction. Thus, the gas tank specification is in substance a provision for a uniform or standardized type of tank.

Furthermore, chassis specifications place definite responsibilities upon the manufacturers. For example, the specifications for axles, frame and passenger load require that the chassis manufacturer shall furnish ratings to all state departments of education.

Seventh, the conference adopted body standards. Examples of safety provisions are:

1. All school bus bodies shall be of all steel construction or of other metal with at least a strength equivalent to all steel construction as certified by the manufacturer.

2. Safety glass shall be used for doors and windows.

3. The bus body, including hood, cowl and roof, shall be painted "national school bus chrome"; fenders and trim shall be black, and the words "School Bus" shall be painted in black letters at least 4 inches high on both the front and rear.

Economy in school bus body construction was effected by: (1) designating the conventional model as standard equipment and (2) by the adoption of uniform spatial dimensions for this type of bus. In substance, the standards limit each bus body manufacturer to six lengths of bus body, thereby assuring the schools of the economies inherent to volume production. For standard equipment, the following dimensions were approved: (1) an outside body width of 96 inches; (2) a minimum inside height of 66 inches, and (3) a maximum of six body lengths per manufacturer, said body lengths to fall within the range of 170 inches to 315 inches. The standards also provide that the maximum overall length of the bus shall not exceed 33 feet.

SAFETY RULES FOR PUPILS

1. In approaching or leaving the bus stop, always walk on the left side of the road toward traffic.
2. Make sure that the road is clear, get the driver's signal when crossing the road from the bus and cross in front of the bus. Look both to right and left, then walk; do not run.
3. Be on time; the bus must run on schedule.
4. Remain seated until the bus stops.
5. Leave the bus only with the driver's consent.
6. Do not extend head or arms out of windows.
7. Be courteous to the driver and fellow pupils and cooperate with the bus patrol.
8. Remain in the space to which you are assigned.
9. Help keep the bus clean. Do not damage bus equipment.
10. Carry on no unnecessary conversation with the driver while the bus is in motion.
11. Open bus windows only with the permission of the driver.
12. In case of personal emergency, request the driver to stop the bus.—A. R. Meadows.

Who Should Be Responsible?



A large local administrative unit can provide the best transportation service.

ONE of the key questions in the development of a sound pupil transportation program is: Who should be responsible? Should chief responsibility rest with the small attendance unit serving a single school; the larger local administrative unit, which includes a group of attendance units, or directly with the state education department? All three types of administration now exist in the United States. Which provides to a maximum degree the two basic essentials of sound school administration: democracy and efficiency?

Certain serious weaknesses are found when the small local attendance unit has chief responsibility. The attendance unit is so small that, when the transportation of each is administered separately, bus routes of adjoining districts overlap and costs are high. This is particularly serious in the transportation of non-resident tuition pupils. When the high school (receiving) district provides transportation it is so small that not only the administrative overhead is high but the vicious practice of competition among high school districts for tuition pupils arises. Often nonresident tuition constitutes a major part of the budget and a high school district will use expensive and wasteful methods of pupil transportation to attract pupils even though they reside in a community served by another school.

When the elementary (sending) districts provide the transportation, the situation is even more difficult.

The local board and principal have no responsibility for such pupils except their transportation and are more interested in the administration of the local school. They often neglect to provide the necessary supervision and usually let out the transportation on contract, an expensive method compared with school owned and operated equipment.

In addition, the sending districts are so small that there is wasteful overlapping of their services. The classical example of this is the three elementary districts lying side by side that could readily transport their pupils in one bus. Instead, each employs a bus and three buses pursue each other daily forth and back along a 26 mile highway to high school.

The largest possible unit for administration of pupil transportation is the state. The most notable example of this system is found in North Carolina where the state itself writes specifications for buses, purchases the buses, insures them as a single fleet, lays out routes and provides for maintenance and operation. By assuming this responsibility the state has been able to increase safety, effect economies and realize a higher degree of equality of educational opportunity.

This type of centralized administration has much to commend it and does not carry with it the same undesirable implications that accompany centralized control of the curriculum or the selection of teachers, since the transportation of pupils

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does not determine the way they think. However, most states are definitely committed to local control of schools and with them the problem is that of setting up strong local administrative units that are capable of handling pupil transportation.

This brings us to the larger local administrative unit as the answer to the original question: Who should have chief responsibility for the pupil transportation program?

The larger local administrative unit should embrace an area corresponding roughly to a county and should provide the general administrative and educational services for which the state is too large and the attendance unit, too small. It retains primary control over their schools by those served but is large enough to handle efficiently such general problems as pupil transportation. Such a unit can provide at reasonable overhead cost the technical knowledge necessary to purchase, insure, maintain and operate buses efficiently. It can eliminate overlapping and wasteful routes and can purchase vehicles, gasoline, equipment and supplies to greater advantage than can a smaller unit. It can own its buses and can provide for their repair through a central garage.

No matter how strong a local administrative unit, however, there are certain responsibilities of setting up and enforcing minimum standards that must be left to the state. In the regulations governing the construction of school buses and the qualifications of drivers the state should take primary responsibility, as the assumption of these functions by a smaller unit results in waste and confusion. The state also has the responsibility for providing leadership.

In most states the larger local administrative unit should be primarily responsible for pupil transportation, with the guidance and services of the state education department.

Bus Becomes Educational

WARD G. REEDER

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SCHOOL buses are being used more and more for purposes other than transporting pupils between their homes and school. A few city schools have purchased buses to be used only for the purpose of educational tours. Some of the auxiliary or collateral purposes for which school buses are being used are:

1. To transport teams representing the school in contests.
2. To transport classes on educational tours.
3. To transport ill or injured pupils to their homes or to a physician.
4. To transport school employees to institutes and other educational meetings.

Auxiliary uses of school buses should be encouraged when they contribute to the educational progress of the pupils. Moreover, such uses do not add much to school costs, especially when the buses are owned by the school. Under private ownership of buses such uses are more difficult to plan and to finance and this is another potent argument for school ownership.

Although they should encourage the use of school buses for truly educational purposes, school officials and employees must guard against their use for noneducational purposes. Unless such guards are established, school owned buses are likely to be used for fishing expeditions, church organizations, political parties, picnic gatherings and all sorts of similar private groups and activities.

The test of any proposed auxiliary use should be whether it will be of sufficient educational benefit to the pupils to justify the cost. School owned buses are usually granted free license plates and are usually not subject to local, state or federal taxes of any kind. Because of these concessions to the schools, the legality of any use of buses for nonschool purposes is certain to be questioned.

Statutes and court decisions on the auxiliary use of school buses are almost nonexistent. Most states, however, have statutes governing the

auxiliary use of school grounds and buildings and, since school buses are a part of the school plant, the statutes would seem to pertain to them. Likewise, the hundreds of court decisions, although practically all of them have been on the use of school buildings and grounds, would seem to apply with equal pertinence to the use of school equipment, including school buses.

According to one line of court decisions, the use of school property for nonschool purposes is prohibited in the absence of specific statutory permission "no matter what the nature of the collateral use may be, or whether such use interferes with the use of the property for school purposes." According to another line of decisions, which in the main are more recent, the use of school property for nonschool purposes is permitted, "provided the collateral uses do not interfere with the use of the property for school purposes."

A set of regulations adopted by the board of education and covering the purposes for which and the conditions under which school buses may be used is the only businesslike way of dealing with this problem. Because of the greater danger of damage to the buses and of injuries to passengers, the regulations governing the auxiliary use of school buses should be more stringent than those governing such use of buildings, grounds and other school property. A few states that provide state aid for pupil transportation have regulations governing these matters and such regulations in every state would be desirable.

The regulations governing auxiliary uses should require that the regular driver be in charge of the bus or, if that is not possible, that the person who substitutes for him shall be approved by school officials.

The same driving regulations that apply to the regular use of the bus should also apply to its auxiliary use. The need for such regulations is apparent because the danger of acci-



From "All the Children."

Auxiliary use of school buses is an argument for school ownership. This New York City bus is used for pupil tours.

dents is increased when the bus is taken off its regular route and when driving is done at night. Some of the worst school bus accidents of recent years have occurred on auxiliary trips. Another factor to be considered in connection with the possibility of accidents is that transportation insurance policies, as frequently written, cover only the transportation of pupils on the regular trips to and from school. Therefore, when a bus is being used for auxiliary service, it should be known that the insurance covers such service.

In the United States more than 3,000,000 pupils are transported daily between their homes and school. Estimating that the average pupil who is transported spends forty minutes on a bus each day, 2,000,000 hours are spent daily by the pupils of the nation in riding buses.

School officials and employees have given almost no thought to the possibilities of utilizing this time for educational purposes; they have not yet made it an official part of the curriculum. Something can be done to salvage this time. Equipping the bus with a radio has been tried in a few schools. Other schools have used the bus ride as an opportunity to give safety instruction, especially regarding transportation.

Records

W. W. MOLSBERRY

ONE of the first things to consider in setting up a cost accounting system for transportation is the person delegated to keep the records. The school administrator would be happy to shift this detail of accounting to the secretary of the school board. In some instances this can be done but in many states the secretary is not required or expected to act as a cost accountant. In such instances either the school superintendent and his clerical help or someone delegated by him must assume the responsibility for cost accounting and for the recommendations to the board of education based upon a study of the records obtained.

In determining the forms to use, the first consideration is that of adequacy and completeness. Of great importance, however, is the necessity for making these forms usable with a minimum amount of help. Cost accounts may be so detailed that they become more expensive than their use justifies. These principles of adequacy and simplicity have been accepted in developing the accompanying forms.

In the majority of schools providing pupil transportation, the statements pass through the hands of the superintendent to be checked and coded before being acted upon by the board of education. At this time the data needed for the transportation accounts can be taken from the statements.

For convenience the accounting records are in three parts. Parts 1 and 2 are booklets and part 3 is composed of essential forms.

Part 1 is the Individual Bus Record, a stapled booklet, 8½ by 11 inches, one being provided for each bus operated. It is kept in the active file during the current school year. The two forms that make up part 1 are illustrated.

Part 2 is the Garage Account and Depreciation Record, also a stapled booklet, 8½ by 11 inches; it is kept in the active file with the Individual Bus Record. At the end of the year

Date	Operating data				Daily expense									
	Speedometer reading	Miles	Trips	Pupils in out	Gasoline Gal.	Cost	Oil and grease Qt.	Cost	Repairs and maintenance					
									Chassis	Body	Tires			
									Parts	Labor	Parts	Labor		Misc. expense
1	10270	24	2	57 30	4	40	11							
2	10294	24	2	31 30	13	125	1	12	2.75	1.20			3.24	
3														
4														
5														
6														
7														
8														
9														
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18														
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20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
TOTAL	10791	511	60	625 30	74	1110	10	172	4.64	7.10	3.60	9.00	3.24	50

Part 1, Form 1—Bus Operating Record

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Yearly total
Fixed costs:											
Depreciation--Chassis	18 11										163 00
Depreciation--Body	2 45										20 00
Interest on bus											
Insurance	170										12 60
License											
Administration	4 00										36 00
Other fixed costs											
TOTAL FIXED COSTS	19 56										261 60
Variable expenses:											
Operation of vehicle											
Gasoline	11 10										84 75
Oil and grease	172										10 35
Maintenance of vehicle											
Repairs, chassis--parts	4 64										19 12
Repairs, chassis--labor	7 60										26 40
Repairs, body--parts	4 20										8 12
Repairs, body--labor	8 00										21 22
Storage or storage	18 79										92 65
Tire expense	3 24										12 50
Minor tools											2 18
Washing											
Miscellaneous expense	30										21 5
TOTAL VARIABLE EXPENSES	59 60										307 67
Total cost less wages	83 4										517 22
Driver's salary	30 00										270 00
TOTAL MONTHLY COST	113 76										587 22
Data pertaining to operation:											
Miles of travel	511										4520
Number pupils transported	31										32
Days operated	20										178
Gallons gasoline used	74										565
Miles per gallon gasoline	7										1
TOTAL COST PER BUS MILE	22										16
COST PER PUPIL PER MILE	3 67										2 97

Part 1, Form 2—Cost of Operating by Months

Name	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
Depreciation											
Garage	4 12										
Depreciation	1 20										
Interest											
Garage											
Depreciation											
Insurance	1 20										
Other expenses											
Labor	1 20										
Other fuel	1 20										
Operation											
Start											
Light	2 20										
Power											
Other	2 20										
Other costs											
TOTAL	12 76										

Part 2, Form 3—Garage Account

Date purchased or built		Original cost		Estimated life		Depreciation rate	
1928		1200		10 years		12%	
1929		1200		10 years		12%	
1930		1200		10 years		12%	
1931		1200		10 years		12%	
1932		1200		10 years		12%	
1933		1200		10 years		12%	
1934		1200		10 years		12%	
1935		1200		10 years		12%	
1936		1200		10 years		12%	
1937		1200		10 years		12%	
1938		1200		10 years		12%	
1939		1200		10 years		12%	
1940		1200		10 years		12%	
1941		1200		10 years		12%	
1942		1200		10 years		12%	
1943		1200		10 years		12%	
1944		1200		10 years		12%	
1945		1200		10 years		12%	
1946		1200		10 years		12%	
1947		1200		10 years		12%	
1948		1200		10 years		12%	
1949		1200		10 years		12%	
1950		1200		10 years		12%	

Part 2, Form 4—Garage Investment and Depreciation Record

Superintendent of Schools, Randolph, Iowa

Part 2, Form 5—Vehicle Depreciation Record

Part 2, Form 6—Garage Equipment and Large Tool Inventory

The data resulting from such an accounting system as the one described should assist materially in making accurate decisions in regard to the junking of equipment, purchases of equipment and policy of ownership.

Part 3, Form 7—Inventory Supplies and Parts

TRENDS RESPOND TO MICRANITICHYBRIDIC'S INFORMATION REPORT

_____ 906

(Driver, after filling out the form, will present it to the mechanic. The mechanic will list the parts and material on the back of the card and present the card signed for payment.)

Part 3, Form 9—Shop Work Order

Part 3, Form 10—Mechanic's Weekly Report

Qualifications for Drivers

J. T. REECE

Director of Transportation
New Mexico Department of Education

WITH the increase in number of consolidated schools and consequent lengthening of school bus routes, New Mexico has become acutely aware of the importance of transporting its children safely and effectively.

Last year \$969,971.10 was spent for pupil transportation. One thousand and three buses were used to transport 25,700 pupils at a per capita cost of \$37.74. During the present school year a long step toward greater safety has been taken in the replacement of 214 nonsteel vehicles with all steel equipment. With these replacements, New Mexico now has complete, all steel equipment, with the exception of wagons. Seven wagons used for transporting pupils have been removed and the remaining six await improvement of secondary roads before they can retire for more efficient vehicles.

Realizing that the most important element in a program of safe pupil transportation is the school bus driver, every effort is made to select these men with the same care with which teachers are chosen.

Sound Physical Condition

A driver must be at least 21 years of age and an examination by a licensed physician must show him to be in sound physical and mental health, free from communicable disease, of good vision and hearing and strong enough to handle a bus with ease. This examination must be repeated each year.

The driver must pass also a special drivers' examination conducted by the state police, which tests his knowledge of motor vehicle laws and regulations governing the transportation of school children and demonstrates his driving ability by a practical road test. He must give evidence of at least two years or 10,000 miles of driving experience, without personal blame for major accident, and should have had experience in operating vehicles larger than an ordinary touring car. A certificate signed by at least three per-

sons, testifying to the driver's character, also is required. Knowledge of bus maintenance and sufficient mechanical ability to make ordinary repairs are necessary qualifications.

One of the most essential qualities of a good bus driver is the ability to manage groups of youngsters effectively. The fact that the average length of a school route in New Mexico is more than 19 miles makes it apparent that the bus driver is an influence in the life of every pupil.

In order that bus drivers may receive scientific training in all phases of the job, New Mexico State Teachers' College offers a one week's concentrated summer course in "Safety Education for Bus Drivers."

Each County Sends Delegate

In order that every bus driver in the entire state may profit by this course, a plan has been worked out whereby \$25 is allotted each county bus drivers' organization to help cover the expenses of one driver selected by the group to attend the school. Upon his return, the driver conducts a school for his county group.

Another step toward the training of drivers has been taken in the establishment of sectional meetings for school bus drivers in connection with county teacher association meetings. This plan has been effectively worked out in a number of counties.

Through the cooperation of the department of health, first aid instruction is given to bus drivers, so that in case of an accident they may be able to care for pupils until the arrival of a physician.

Safety regulations which each driver is obliged to observe, under penalty of dismissal, number 40. Some of the most important are:

1. Buses shall be brought to a complete stop before entering the main highway.

2. Buses shall be brought to a dead stop, not less than 10 feet or more

than 50 feet, before crossing any railroad. If tracks are clear buses proceed in low gear; gears are not to be shifted until all tracks have been cleared.

3. All doors must be kept closed while the bus is in motion.

4. Drivers shall not leave the bus without stopping the engine and setting the brakes. The bus shall not be left in gear while it is standing.

5. Drivers shall always drive to the extreme right of the road before permitting pupils to get off or on the bus.

6. Drivers are requested to avoid sudden or jerky stops.

7. When stopping the bus on the highway, the driver shall see that pupils cross in front of bus when crossing the road, after ascertaining that the way is clear. The driver shall not start the bus until pupils are seen to be out of danger.

8. Drivers shall have their buses inspected regularly for the condition of headlights, brakes, steering apparatus, tires, windshield wipers, horns and other mechanical features.

9. School buses shall never attempt to pass another vehicle unless the road is visible and clear for at least 500 feet ahead.

Avoid Stops on Hills

10. In rolling or hilly country no bus shall stop on hills within 500 feet of the top to let pupils on or off or to make some minor repair.

11. Buses shall not stop on curves to let pupils on or off, unless the road is visible at least 500 feet in both directions.

12. School buses shall not be driven faster than 35 miles per hour.

13. The driver shall attain reasonable efficiency in first aid treatment.

14. Under no circumstances shall the driver use intoxicants during his days of service.

15. The bus shall never be operated with the clutch disengaged except when coming to a stop.

Maintenance in North Carolina

LLOYD GRIFFIN

Executive Secretary
North Carolina School Commission

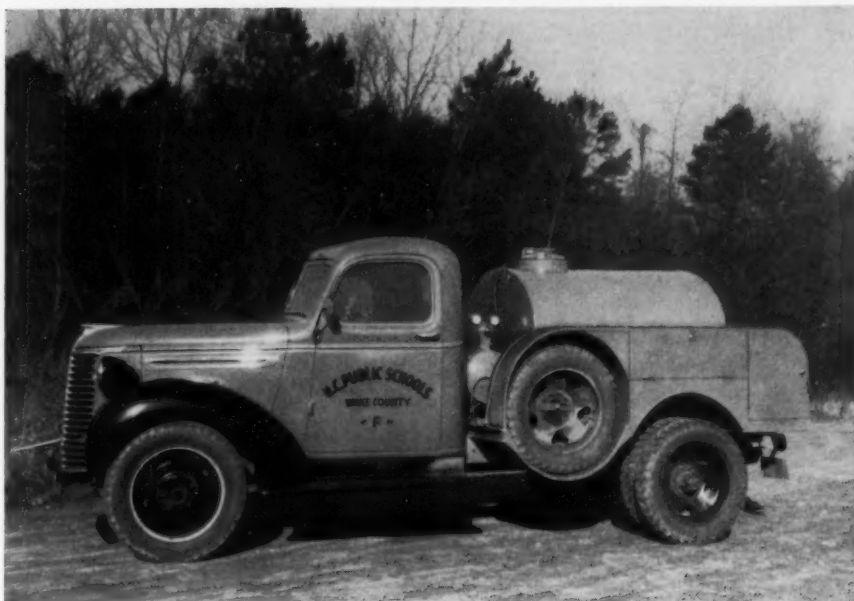
NORTH CAROLINA has 100 counties and each county is an administrative unit for school administration. The operation of the public schools, by constitutional mandate, is an obligation of the state. The county is thus an administrative arm of the state in the operation of the public schools.

Approximately 320,000 children are transported daily to and from the public schools of the state. The 4375 school buses used in their transportation are publicly owned, operated and maintained. This amount of transportation is necessary because of the many consolidated rural schools. It is the philosophy of this state that every child within its borders shall have an opportunity to attend school and to spend the night at home with its parents.

In order successfully to operate and maintain a fleet of buses, it is necessary to have a definite and rigorous program of preventive maintenance. Such a program must include frequent inspection of the buses; repairs and replacement of parts and supplies, and service at frequent intervals. The cost of servicing school buses regularly liquidates itself and reflects favorably over the life of the equipment.

School buses with faulty brakes and defective gears are potential accident breeders and are expensive to operate. In order to carry on the necessary repair and servicing, it has been found necessary to maintain in each county administrative unit maintenance facilities, which include a service car and a garage equipped to do all types of repair work.

In North Carolina, there are two plans of service in the maintenance of school buses. The older type, which is used in about 70 of the 100 counties, requires the services of two full-time mechanics, and additional help as required, with one or more service cars, depending on the counties, the number of buses in opera-



A gasoline delivery and maintenance truck, North Carolina School Commission.

tion and the number of schools with reference to the distance from the garage. These service cars are pickup trucks equipped with an air compressor, a grease gun and an especially constructed body with enclosed compartments to accommodate supplies, tools and other accessories.

At the beginning of each school day, one mechanic leaves the garage on an inspection trip. This mechanic knows the make and model of the buses that he will inspect during the day and carries with him in the service car tools and fast moving parts, including fan belts, spark plugs, distribution parts and spare tires, which experience has shown he will probably need during the day.

Upon reaching the school (the buses are parked at the school from 8:45 a.m. until 2:30 p.m.), the mechanic goes directly to the principal to make inquiry as to whether any of the buses are in need of repair. If the drivers have had no difficulty with the buses and no repairs appear to be necessary, the mechanic gives the buses and fuel dispensing equipment a thorough inspection.

These inspection trips also include a greasing schedule, which requires that all buses be thoroughly greased and transmission and oil levels

checked every 700 miles of operation. Tire pressure, condition of batteries and radiator antifreeze solution are checked once each week.

The second mechanic remains at the garage to take care of repair jobs brought in by the inspecting mechanic. He also answers emergency repair calls by principals or drivers. The principal knows the day and approximate time the inspecting mechanic will visit his school and, if an emergency arises on the day when the inspecting mechanic is not scheduled to visit his school, he telephones the mechanic at the garage, who responds to the call. If there are no calls by noon, the garage mechanic assumes there are no emergencies and he then makes a short inspection trip in the afternoon. He returns to the garage at the school closing hour to be available for emergency calls and remains there until all buses are safely home. Relief or emergency buses are available at the garage; in cases of major breakdown by the regular buses, the relief buses are placed in service while the regular bus is being overhauled.

The second plan of maintenance, and the more satisfactory one, embodies the dispensing of gasoline and motor oils, along with the regular

inspection trip of preventive maintenance. The cost of gasolines, oils and greases constitutes the largest single item of current operation of school transportation in North Carolina. These items represent approximately 40 per cent of the total current operating cost each year and demand close scrutiny and accurate accounting.

Ordinarily, gasoline is purchased for the school buses and is placed in underground storage tanks on the school grounds, subject to the supervision of the school principal. This method is subject to objections. In the first place, it demands considerable time of the school principals, who are sorely needed for other professional duties. There is a lack of

adequate records in connection with dispensing the gasoline, and too much stock is required to be on hand divided among several points, resulting in needless evaporation.

The new method of dispensing gasoline, tied in with the maintenance of school buses, involves the use of a delivery tank built to individual specifications. These tanks vary in size according to the number of buses to be served. An average tank holds approximately 400 gallons and is mounted on a 1½ ton chassis having approximately a 157 inch wheel base. The truck is equipped with an air compressor powered by the truck motor. A pressure of 130 pounds is maintained in a storage tank. From the air

storage tank, an air line with reduced pressure is run to the gasoline tank, making it possible to dispense gasoline directly from the tank to the tanks on the school buses under constant pressure at all times.

This method eliminates the uncertainty of gravity dispensing and does away with the use of rotary pumps propelled by power take-offs. Adequate safety valves are installed in the tanks. Gasoline is dispensed through a wet hose 25 feet in length connected to an accurate meter graduated to tenths of a gallon. This delivery equipment has also two motor oil tanks, of 20 gallon capacity each, in which are carried two weights of motor oil: light weight for the new buses and a heavy weight for the older buses. Motor oil is dispensed under air pressure also.

This maintenance truck is also equipped with spare tires, tire inflation equipment, batteries, grease gun, quick detachable air guns and enclosed compartments in which are carried the necessary tools and quantity of fast moving parts.

In counties in which this service is employed, the school buses are serviced every other day, *i.e.* the maintenance truck goes to half the schools one day and the remaining half the next day. Considerable gasoline and oil are dispensed, inspection work is done, minor repairs are made and the complete unit is in first-class condition to take the children home at the close of school each day. The mechanics are also enabled to keep a daily check on gasoline and oil inspections for each bus. They know the operating condition of the motor and the needed carburetor adjustments, and necessary minor repairs are provided before they develop into major breakdowns.

In general, this service provides an insight into the daily operating costs and mechanical condition of the entire fleet of buses. It is planned to have this system of servicing the buses in use throughout the state as early as facilities will permit.

Preventive maintenance and daily inspection, together with a careful check on gasoline and oil consumption, are absolutely necessary to economical operation of school buses.

Adult *versus* Pupil Drivers

ROBEN J. MAASKE

President, East Oregon College of Education

WITH the gradual adoption of a policy of district-owned school buses in many school districts throughout the country, more and more superintendents and school boards are asking themselves "Shall we hire adult drivers for our buses or shall we hire pupil drivers?"

This question, however, would not be asked in such states as Arkansas, Delaware, Indiana, Kentucky, Missouri, New Jersey, Ohio, Tennessee or Utah, since these states have laws requiring that school bus drivers be 21 years or older.

West Virginia prohibits by law any pupil from driving a school bus and Colorado requires that bus drivers be more than 18 years of age. Illinois restricts anyone under 21 from driving a school bus.

In practically all other states, the policy of employing adult or pupil drivers is left to the jurisdiction of local districts, subject only to general state laws regarding qualifications for drivers or public conveyances.

Twenty officials in charge of school bus transportation in state departments of education were asked what from their experience school executives prefer in the way of bus drivers. Their reasons for preference for adult drivers are as follows:

1. The adult driver can maintain better discipline.
2. He is more dependable.
3. He observes safety precautions more carefully when driving.
4. His judgment is more mature in problems of driving, student conduct on buses and loading and unloading.
5. He assumes responsibility more readily for effective bus management and his reports to principal or superintendent are prompter and more accurate.
6. The average tenure is longer for adult drivers.

Those who believe that school executives prefer pupil drivers gave the following reasons:

1. Pupil drivers cost less in wages and, if they live at the end of the line, cost less in operating mileage.
2. The principal or the superintendent can exercise more control over pupil drivers.
3. Acceptable adult drivers are not always available.
4. The driver's salary helps the needy pupil to remain in school.

It is undoubtedly clear that, if funds are available to attract a high type of capable adult driver, he will be given definite preference over a pupil driver.

Problems in Pupil Behavior

A. R. MEADOWS

Supervisor, Research and Surveys
Alabama State Department of Education

PUPIL behavior in school bus transportation involves the lives and health of transported pupils and the safety of other vehicles that approach school buses on the highway. The administrative procedures controlling the operation of school buses affect pupil behavior, which, in turn, affects such procedures. Some type of education is in progress as pupils are being transported to and from school. The bus is, for a part of the day, a rolling school on wheels.

Bus seats are generally arranged according to one of three seating plans, as follows:

1. All seats face forward and seat rows are separated by a center aisle.

2. Forward-facing seats in the center of the bus extend the entire seating length of the bus and longitudinal or side-facing seats extend along each side of the bus.

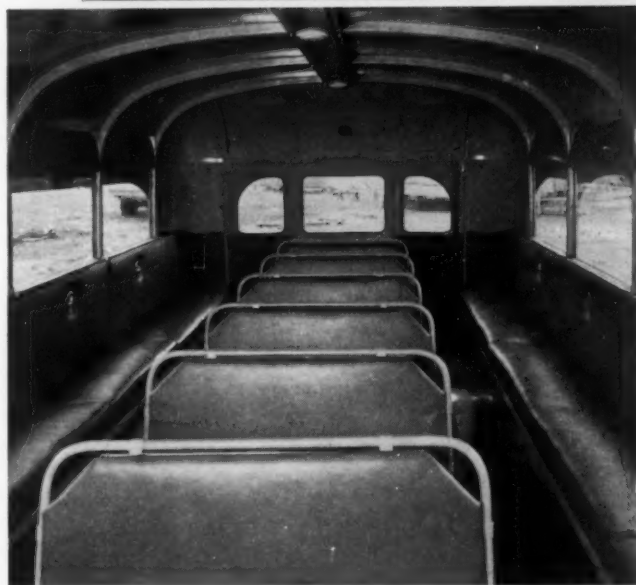
3. All seats are longitudinal with two rows of longitudinal or side-facing seats in the center of the bus and a longitudinal seat row on each side of the bus. Under this arrangement the pupils on the center longitudinal seats sit with their backs against the backs of the pupils of the other seat row; all pupils sit facing the sides of the bus.

The third seating plan is unsafe and vitally affects pupil behavior. This type of seating does not provide anything for pupils to brace against or to hold to in case of a collision or in case the bus stops suddenly or is overturned. Under such circumstances pupils may be thrown bodily the entire width, length or height of the bus. Or they may be thrown against the driver, rendering him powerless in his efforts to control the bus. This seating plan is used largely because more pupils can be seated in this type of bus than in either of the other two types.

In some cases pupils are permitted to stand up near the front of the bus. This situation existed recently in a school bus carrying 76 pupils;

an axle broke and the children were thrown against the driver, pinning him against the windshield. The bus overturned and rolled down an embankment, killing several of the children and injuring every child on the bus, except one. Whether final conclusions from the investigation of this accident show that the seating plan contributed to causing the school bus to overturn and roll down the embankment or not, the fact remains that the pupils in this bus had nothing to brace against to keep them from being thrown against the driver and to and fro in the bus as it rolled down the embankment.

The longitudinal seating plan does not provide aisle clearance space.



Above: Forward-facing seats separated by a center aisle are preferable to other types of seating arrangements. Left: Another type has longitudinal side seats and forward-facing seats. In still another seating plan there are both longitudinal side and center seats. This plan is unsafe because it does not provide a brace in case of accident.

The pupils who ride the farthest are usually required to sit in the rear of the bus where riding comfort is least satisfactory in order to prevent pupils who board the bus later in the morning or who get off first in the afternoon from having to step over pupils in reaching or leaving their seats.

If the first pupils who get on the bus in the morning sit in the front of the bus, the pupils who get on later must necessarily step over the seated pupils, causing confusion and possibly soiling clothing.

Side-facing seats make it mechanically easy for adolescent children to carry on different forms of "petting." The moral danger can be avoided to

some extent by administrative procedures whereby only pupils of the same sex are allowed to sit facing each other or whereby small children are required to face adolescent children. Such procedures, however, further burden the driver who under the best mechanical circumstances has a grave responsibility in driving the bus. It seems that the state should prohibit this type of seating plan in the purchase of school buses because of the physical and moral hazards involved and should require at least forward-facing center seats and, preferably, all forward-facing seats in the school bus.

Accident reports from different sections of the nation show that pupils have been injured by allowing their elbows or arms to protrude through the bus windows. Every year for the last several years at least one pupil has lost an arm by extending it through the school bus window and having it mangled or snatched off by a passing truck or in passing stationary objects. In one school bus accident reported recently, the driver of the truck did not know that any damage had been caused

until he stopped his truck and noticed that the child's arm was hanging on the truck.

The tendency on the part of pupils to rest their arms on the bottom of the window sill with the elbow or forearm extending out the window can be eliminated by having the windows so designed as to lack about 6 inches of reaching the sill; at the same time the design should provide a vertical clearance width of 12 inches when the window is lowered, so as to safeguard the pupils and at the same time permit emergency exit.

One company manufacturing bus bodies has designed a window guard that is held against the window by a spring, making it difficult for pupils to extend their arms out of the window in a vertical manner while seated, but the guard can be pushed outward and downward in case an emergency exit becomes necessary. Stationary window guards or grilles that do not provide sufficient clearance space for pupil exit through the windows in case of emergency should be prohibited.

Another frequent cause of pupil injury in school bus transportation

is the unexpected opening of the emergency door or the service door. A satisfactory emergency door fastening device will prevent such an accident. In most, if not in all, cases this type of accident can be eliminated by preventing pupils from standing in the aisle near the emergency door or from sitting near the door without a back rest while the bus is moving.

The problem of the unexpected opening of the service door seems to have been solved through the use of adequate door fastening devices in bodies manufactured by the leading school bus body manufacturing companies. In addition, a guard rail device should be placed in front of the front passenger seats in the bus in order to prevent pupils from being thrown into the step well, against the service door or against the school bus driver. This safeguard was recommended as essential to safety by the National School Bus Conference held at Teachers College, Columbia University, in April 1939.

School boards should provide every possible mechanical safeguard for transportation in the light of the mental immaturity of many of the children. However, such safeguards cannot fully guarantee the safety of pupils. The pupils must assume some personal responsibility.

The provision of school bus patrolmen for each school bus has been found conducive to safety and should have potential educational values.

Selection of boys or girls for school patrol service on school buses should be made by members of the faculty and the bus driver, taking into consideration the following qualifications: (1) sound moral character; (2) dependability and willingness to obey orders; (3) ability to understand school bus regulations; (4) ability to command respect of pupils on bus.

The presence of patrolmen on school buses does not in any way reduce the responsibility of the bus drivers for the safety of pupils in their care. Patrolmen are to assist the drivers in any way possible to prevent accidents.

The principal of the main school served by each bus should receive the consent of parents for their children to act as bus patrol members.

Six Buses Transport 1450 Daily

LAWRENCE E. CHENOWETH

Superintendent, Bakersfield, Calif.

THE Bakersfield School District, Bakersfield, Calif., operates six large school buses. All of these work out of the school garage and warehouse except one, which is kept in a garage built by the district at the mouth of Kern Canyon, a number of miles from the city.

For identification purposes, the buses are numbered. They have a rated capacity ranging from 45 to 92 children.

A total of 1450 children is transported daily by the six buses, one bus making three trips certain days of the school week. This does not include trips made transporting children to and from home economics and industrial arts classes and on special trips having to do with units of study progressing in the schools.

Nor does it take into consideration the transportation of crippled children to and from school each day.

The six routes have been charted carefully, providing service in all directions from the boundaries of the school district; the district boundaries are not coterminous with the city limits and the longest distance is 21 miles from the school district line to the school.

The semirural area is serviced and no children are transported who live less than 2 miles from the nearest of the 14 school buildings. The total school population, which is entirely elementary, is 6475. The Union High School, located in Bakersfield, but not under the jurisdiction of this board of education, maintains a large fleet of buses, covering a large area.

School Work on Parade

GEORGE A. STRACKE
School Visual Education Specialist, Flint, Mich.

SPECIAL exhibits consist of presentation of pupil work to large groups in the community, district or state. Although not intended for pupil instruction, they possess that advantage also. They may be roughly classified as temporary, semipermanent, permanent and display case. Temporary exhibits are usually arranged for parent-teacher associations, parents' nights, the chamber of commerce, luncheon clubs, fairs and hobby shows, Education Week and special observances.

Every teacher realizes the value of exhibits in promoting the school in the community. Not only do exhibits serve to keep the school before the public but they provide an opportunity for personal contact between teacher and community and are of distinct advantage in making teacher tenure more secure. Teachers should never forego an opportunity to present the work of their pupils to the public.

No project of this nature should proceed without a plan and a directing head. The location, space, duration, protection and potential number of spectators all have a definite influence on the character of the material to be included. These factors make advance planning of major importance.

If the exhibit is to be of sufficient size to allow the presentation of diverse materials and of the work of a number of classes and schools, the directing executive should be an individual whose work keeps him in contact with the community, preferably someone who will not be represented by material in the exhibit and one whose decision will be final.

The basic principles to be followed are few, although their application demands thought and hard work: (1) the exhibit should have a definite aim; (2) it should be attention-getting and attractive; (3) a central theme is necessary for unity and gen-



Display cases in lobbies serve three functions: (1) to acquaint visitors with school work, (2) to inspire and (3) to orient younger pupils to advanced work.

eral excellence of composition, and (4) it should be productive of results.

In planning an exhibit, attract the attention of the spectators by the intriguing arrangement of the display, hold their interest by the nature of the material and the manner of its presentation and create in the minds of the adults who visit the exhibit a desire to see such work continue or be broadened in its scope. If these goals are achieved, a favorable public attitude will result.

The individual in charge of organizing material for public exhibit should follow a definite procedure.

1. Determine the location, size and accessories of the exhibit space.

2. Study the school program and, by consultation with teachers, discover the nature and amount of material available.

3. Decide what material may be best displayed on walls, on tables and on racks.

4. In the case of a fair or other large exhibit, make a scale map and apportion the space among the departments to be represented, keeping in mind the relative importance of each subject and endeavoring to have every phase of work represented.

5. Indicate to each teacher and department committee the space allotted to them.

6. If funds are available for additional display accessories, see that they are planned and made.

7. Arrange for unified and attractive decoration and background material to ensure an attractive appearance and immediate recognition of the unity of the exhibit. This includes tasteful posters, uniform in size and style.

8. Arrange for transportation of materials to and from the exhibit. Get as much material there as early as is possible.

9. Furnish each teacher with a map of the exhibit, marking the allotted space with a distinctive color. Also furnish him with a list of materials necessary properly to mount his display.

10. Be on the job while the exhibit is being put up, to settle disputes as to display, to make allowances for unforeseen difficulties and to prevent flagrant conflicts with the unity and general scheme of the display.

11. Arrange for "explainers" to guard the material and to answer questions. These should be mature pupils, selected for their respectful attitudes, general intelligence and level-headedness.

12. Finally, see that all material is returned when the exhibit is dismantled.

Missing an Opportunity

Parent-teacher associations and the like usually set aside a portion of their monthly programs for demonstrations of school work. Too often, teachers fail to appreciate the opportunity to build a genuine appreciation on the part of parents of the contribution teachers make to the lives of the children. In many instances, the teacher-officer suddenly recalls this portion of the program on the afternoon of the meeting and the preparation consists entirely of a decision, of which the following is typical: "Let's have Miss Smith's class read this time."

The school's portion of the P.-T. A. program should be planned in advance for the entire year. The plan should consider the work of every teacher and department. Each teacher should be given ample notice of the date assigned to her in order that she may have plenty of time to prepare.

Each presentation should have a specific objective that fits in with the yearly or semester objective. The presentation should be divided into three parts: (1) explanation, (2) demonstration and (3) summary.

The demonstration should be of actual classroom procedure and not something especially developed for the program. When a new departure is being tried out in a school and is being presented to adults for approval, this fact should be carefully brought out in the explanation.

Hold a Spring Windup

Whenever possible it is recommended that there be a spring windup or exhibition of individual and class projects. The work of each class should be exhibited in its own classroom. All material should be tastefully arranged in displays according to a plan for the whole building or department. Every department of the school should be represented. The outstanding work of the school year should be presented but every effort also should be made to have each pupil represented by at least one bit of work. Each teacher should remain in her room to greet parents and other visitors and to answer questions.

Able pupils should be used as guides and directors. Their duties should be carefully explained to them and a rehearsal held. Teachers who do not have regular rooms can be used to supervise the guides and to greet visitors as they arrive. If a rotation or series plan of guiding visitors is used, chairs should be placed at frequent points to accommodate those who wish to rest. This is particularly helpful in elementary and junior high schools as the regular classroom equipment is too small to accommodate adults.

Parents' nights and back-to-school nights of the ordinary type are of little value. In order to complete the child's program in the time usually allotted, the parent is unable to meet each teacher individually under this plan.

In an increasing number of communities, displays in downtown store windows are a part of the school's public relations program. If space is available regularly, a plan should be made for the entire school year. A regular schedule should be made and teachers notified of the time allotted

to them. The details of each class or department display should be carefully scrutinized and it should be the aim of those in charge of the entire plan to show the work of each department and subject in relation to the whole program of child development. Such a program should be in charge of a regular committee with authority to get things done.

When space is available only occasionally, it is important that an even more careful study be made to determine what accomplishment is most desirable. The space should be utilized for the full time it is available.

Some rules for window displays are: (1) determine the audience by making an actual check of the number and character of the passers-by; (2) have a definite objective; (3) study the space, lighting and counter-attractions; (4) have a central theme for each display and avoid a hodge-podge of too much material; (5) change the display often, and (6) print explanatory matter in letters large enough to be easily read. Never typewrite information cards or labels; they cannot be read more than 15 inches away.

Use Your Display Cases

Few schools make the best use of the display cases in the school lobbies. As a rule these cases are filled with trophies and cups that accumulate tarnish and dust from year to year. Changes are made only to accommodate new additions. Trophies should be placed in quarters devoted to the activities whose achievements they represent; let athletic trophies be kept in the lettermen's clubroom and music trophies, in the music room.

Display cases in lobbies should be made to serve three functions: (1) to acquaint visitors with the actual work of the school, (2) to inspire better work and (3) to acquaint younger pupils with the values of the work of upper grades. The committee in charge should plan the displays for the entire school year and should rotate the time carefully among all departments.

Hobby fairs are frequently held by civic organizations as a phase of their community progress activities. School authorities should cooperate when they are invited to participate, as hobby shows can be made valuable adjuncts to school and classroom ac-

tivities. They provide an incentive to individual effort and can be used as a means of teaching the importance of orderly arrangement, methodical thinking and thoroughness.

Hobby fairs reveal interests and aptitudes; they can be frequently used to bring out shy pupils and to allow recognition of pupils who would not otherwise receive notice.

Program chairmen of luncheon clubs frequently ask school authorities to contribute to their programs. Some teachers, not recognizing their opportunity, look upon these requests as annoying. In most cases, the contribution is usually made by the speech or music department, to the extent that club members must think these departments are all there is to school work.

Why not have the camera club make slides and pictures of the work

of other departments? A teacher or a pupil, preferably the latter, using slides, can give an instructive and constructive demonstration of the other phases of school work. While rarely more than a week's notice is given, such requests can be anticipated and a program arranged so it can be given on short notice. It may be well for the school to confer with program chairmen.

If the school has a cafeteria, each luncheon club should be invited to hold a meeting there once during the year. Following the luncheon the members can be shown through the building and the work of the whole school brought to their attention. Schools that do not have cafeterias may invite luncheon clubs and have the home economics pupils prepare the meal, serving it in the gymnasium or other suitable room.

diesel engineering, agriculture, home economics, chemistry and geology, have been developed. Already a pupil studying in a one room rural school in North Dakota or in the smallest high school has a bigger variety of practical subjects to choose from than if he lived in New York City.

This program forms the foundation for a purposeful testing and guidance program. Without such an enrichment program a small school is helpless to meet individual needs, which would defeat the real value of any testing objective. In other words, a testing and guidance service becomes meaningful for every high school pupil in the state. Such a department is now being organized for the purpose of helping high school pupils determine their abilities and interests and the state service stands ready to train a pupil in almost any field in which he has aptitude. This service is further improved by a state reference library which is being developed at the study center.

From now on no person reared in North Dakota will be able to say that he did not have an opportunity to go to high school; no disabled pupil who desires to study will be denied the pleasure and enjoyment of keeping up with his well and healthy associates, and no longer will any pupil be able to say truthfully that he was not able to get practical training in his high school days, provided his high school teachers were interested in human beings to the extent of encouraging their pupils to make use of the best school opportunities available in the state.

North Dakota was the first state to establish this service by law with separate appropriation. Many individuals and organizations in various states have become interested in the general supervised correspondence study plan. Many have written for a copy of the North Dakota law and for information about the whole program. Montana was the first state successful in setting up a program by a state law similar to the North Dakota plan.

In four years' time this school program has captivated the attention of the whole state to the point where it is considered to be a progressive and flexible step in education for solving individual needs of pupils on an economical and practical basis.

Supervised Correspondence Study

T. W. THORDARSON

State Director of Correspondence Study, North Dakota

FOUR years ago a large farm organization in North Dakota came to the realization that educational opportunities were not equal in any sense of the word. For instance, boys and girls whose parents lived from 15 to 20 miles from town had an unequal chance to attend high school compared with youngsters whose parents lived in town. It was easy to ascertain that only about 50 per cent of the rural children received benefits of secondary education while 90 to 100 per cent of youths who lived in towns and cities not only had the privilege of attending school but were compelled to do so.

This farm organization set out to remedy the situation by sponsoring a bill, which was enacted into law, setting up individualized instruction to complete the regular school program in such a way that boys and girls in the country could have easy access to high school opportunities and all the youngsters could have more than the traditional high school curriculum for self-improvement. It also provided a home study plan for disabled young people.

A study center was organized at a state institution of higher learning,

individualized instruction materials were developed in many subject matter areas, highly specialized teachers were employed to do the work of building lessons and studying pupils' needs and teaching by a method known as supervised correspondence study. Pupils enrolling under this plan were required to attend school full time either in a rural school or in a town school. Disabled pupils were permitted to work out their own programs.

The first year more than 2000 enrollments were received; the second year, more than 4600; the third year, more than 5000, and the fourth year, more than 6000. The first year 50 regular high schools used the service for enriching their curriculums; the second year, 150; the third year, 300, and the fourth year, more than 350. After four years of operation a curriculum of 90 subjects has been constructed, with specialized subjects to fit the majority of needs of human nature. To show the possible breadth of this curriculum, it is sufficient to say that already courses, such as blacksmithing, carpentry, radio servicing, retail store management, service station operation, gas engines,

Cheyenne Provides for



A marble block above the door of Alta Vista School adds a decorative touch.



Above the blackboards of each classroom is a cork base bulletin board strip.

Six Room Grade School

THE new Alta Vista School at Cheyenne, Wyo., an attractive six room grade school, having a capacity of 240 pupils, was erected at a cost of \$56,862. The design is a compromise between the modernistic and the conventional types.

The building is one story and is constructed of honey color brick, with a flat tar and gravel roof. Boiler and other utility rooms are housed in a semibasement.

Entrances, which open on the east and south sides, lead into small hallways. The walls dividing these small entrance halls from the main hallway are of dark glass brick. Outside double doors and the outside of all the window frames are painted dark blue. Above the front doors is a marble block, which is as wide as the entrance and which has a border of leaf design sculptured in relief against a blue background. This block rises slightly above the level of the walls. The iron gates to the kindergarten playground are also blue. Dark red and black tiles in block pattern cover the hall and the floors of the principal's office.

Windows are large with steel frames. Even on dark winter days

north rooms have adequate lighting. Two way switch lights are provided, making it possible to light the dark side of the rooms only. A test, which was given on a late March afternoon, revealed that the corner desk farthest from the windows had 35 foot candles of light.

Each room has a teacher's closet. In addition, each contains one long closet, recessed in the back wall and fitted with wooden doors swinging on folding steel hinges. This serves as a cloakroom for the children. The doors for this closet are about 4 feet high and extend within 5 inches of the floor. The space between the doors and the floor, together with the ventilator outlets in the top of the closet, is part of the thermostatically controlled ventilating and heating system.

Shelf space for lunches and packages is provided in the closet. There also is a steel rod with individual garment hangers for the children. Bookshelves and a cupboard at the end of this long closet are recessed into the wall. Classroom floors are maple. Above the blackboards, which run around two sides of each room, is a cork base bulletin board

strip. A large cork base bulletin board occupies one corner.

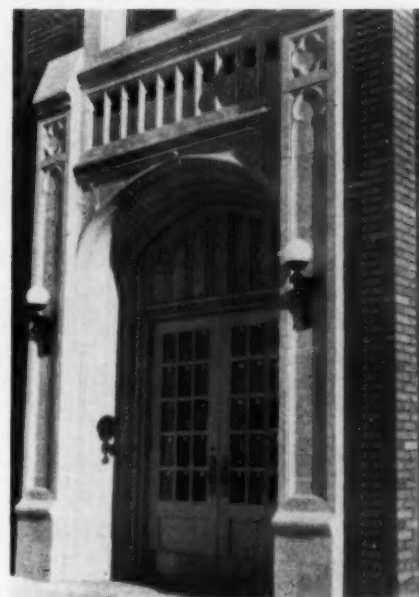
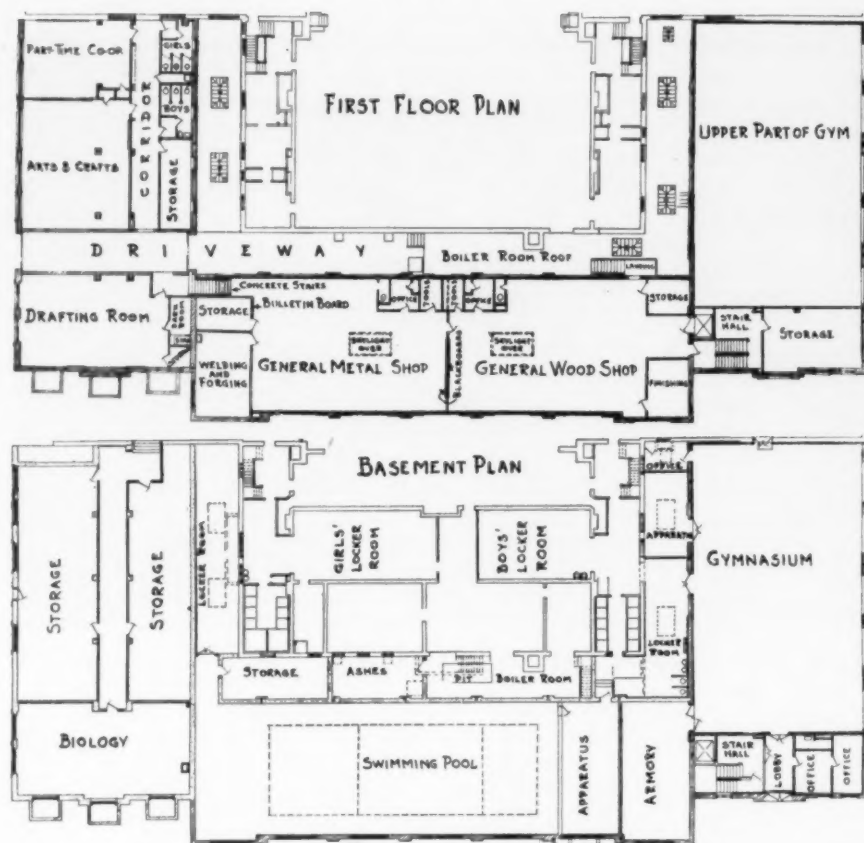
The kindergarten is especially designed for modern methods and has a patterned linoleum floor covering. It faces the south and has a large bay window with a hardwood window seat of kindergarten height. One entire side of the room has built-in cupboards with a metal section of open shelf space. The room opens on a walled-in private playground.

A washroom for the teachers, one for the boys and one for the girls and a janitor's closet are located on the main floor. Long, wide basins with two hot and two cold water faucets and soap dispensers take the place of the older type of wash bowls.

The building has the latest type of air circulating equipment. Unit ventilators in each room bring fresh air from the outside and heat it before fanning it into the rooms. The temperature of the fresh air taken into the room and the regulation of the radiators are controlled by an air-pressure system. Used air from within the room is taken out through screened openings in the tops of the closets and fanned out through vents in the roof. The heating system is a two pipe system with a vacuum pump to return the water. The furnace is equipped with a stoker.

Increased Enrollment

J. L. GOINS
Superintendent, Cheyenne, Wyo.



Entrance to gymnasium and armory wing, new high school addition. Left: The basement and first floor plans.

New High School Addition

WITH the completion of a \$30,000 swimming pool, the senior high school at Cheyenne, Wyo., has added a \$250,000 improvement to its plant providing modern facilities for its program. The swimming pool is a portion of a \$220,000 addition to the original building to provide for increased enrollment.

The three story structure, added to the west side of the senior high school building, which was completed in 1922, creates additional classroom space as well as an up-to-date industrial arts department with adequate space provided for metal shop, woodworking and drafting classes. In the new addition are the swimming pool, gymnasium, armory, cafeteria and music rooms.

Designed to conform to the exterior of the original structure, the interior of the addition was planned so that it is also an integral part of the older section of the high school.

The capacity of the entire building is 1200 pupils, while that of the original was 750. There are now 1020 pupils enrolled.

While the new addition was built primarily because of increased enrollment, advantage was taken of this need to ensure the school of a modern industrial arts department so important in an industrial center like Cheyenne. The central portion of the addition is given over to the wood shop, metal shop and drafting room. Lathes, band saws and drills are provided as a part of the equipment in the wood shop. The metal shop has a gas forge, turning lathes, metal forms and a glass enclosed room with six welding tables. A private office and stock room are provided for both shops.

In the south wing of the ground floor is a full size gymnasium with locker rooms and showers. Adjoining are R.O.T.C. offices and an ar-

mory. The boys' shower room is located under the auditorium of the old structure and opens into both the gymnasium and swimming pool. The girls' locker room adjoins the boys' and opens into the swimming pool. The girls use the old gymnasium, located above the locker rooms on the first floor. In the center wing in the basement is the swimming pool and on the north wing are storerooms and shops for the custodian.

Six classrooms and a lecture hall have been added in the wings of the second floor, each classroom having a seating capacity of 40 pupils. The floors are laid with a soundproof base. The corridors were recessed so that lockers are set flush with the walls. Additional toilet facilities have been provided in both wings.

The third floor is completed on the north and south wings, with the cafeteria seating 360 pupils on the south wing and four soundproof rooms for the music department on the north wing.

An areaway to the boiler rooms in the center of the old building, which provide heat for the addition, as well as for the original structure, was left between the central portion of the new structure and the old to provide for servicing the heating plant.

Chalk Dust

March On, March On

I will build me a school, the schoolmaster cries,
Where the dreams of the kids can come true,
With planning that's sound and with vision
that's wise,
And, maybe, with storage space, too.

I will build me a school that's progressive,
says he,
With workshops and band rooms and all,
Though I know it will be kind of lonesome
for me
Not to hear those sour notes in the hall.

So he planned him a school from plans erudite,
In a sound pedagogical way.
He battled with collegian experts at night
And he fought with his board through the
day.

With much letter writing, he gained several
grants
In order the program to sell,
But in the election he near lost his pants
And his fair reputation as well.

But he built him his schoolhouse—the fruit
of his dreams
(After six times the voters said “nay”);
Of course the fine plans for the workshops,
it seems,
Were “spurlos versunk” by the way.

Tread softly, O Stranger, but spare us your
grief,
Say a prayer for the man who is gone.
Come into the office and meet the new chief;
Education—like time—marches on.

• •

THE sun enters Gemini. The plants of
earth put forth their most gorgeous
blooms. The dear little kiddies carry their
May baskets, filled with hepaticas (and an
occasional rock) to lay them at the doors of
their teachers as tokens of love and affection.
’Tis May.

Have you prepared your final examinations
in the vain hope that, maybe, someone has
learned something during the long winter?
Have you so worked out your quota of flunks
that you may be assured of a goodly class for
the summer session? Have you ordered an
extra blank diploma so that you won't get
caught short in case the son of the president
of the school board should pull through?

Have you wired the legs of that chair on
the rostrum, the one that has broken down
regularly for the last five years and spilled
various commencement dignitaries into the
gutter of hilarity? Have you polished up that
old commencement speech in the feeble hope
that some neighboring community will get
stuck and offer a \$10 fee for the privilege of
seeing you in a tuxedo?

Have you made tentative approaches to all
possible banks in order to arrange credits for
the two months of subsistence? Have you
renewed your notes so that they will not fall
due when the July sun has dried up your
cash and credit?

Go to! The sun enters Gemini! The time
is short! It is May!

• •

Educational Courses Not Listed in Better Summer Sessions

*Educational Administration 404PG, How to
Pick Teachers.* (For superintendents only.)

Preliminary Evaluation of Letters of Appli-
cation: disposal of “To Whom It May Con-
cerns”; points to examine in agency photo-
graphs; evaluation in terms of modern society
of photos taken twenty years ago; the family
photo where the candidate is hidden behind
the dog (horse, cow, little Elmer).

Final Selection: submission to bored boards
of education; wife or mother-in-law decisions;
hit-and-miss selection technic.

Visiting the Prospect: credit cards for gaso-
line, how obtained; approach to the opponent's
school; tactics in presence of a suspicious
principal (the Fuller Brush approach, the En-
raged Parent maneuver).

Interviewing the Candidate: discreet use of
the come-hither look; how to explain low
salary schedules; giving the candidate the
works (Chamber of Commerce technic); clos-
ing the deal without loss of shirt.

• •

AND, as day follows day, may I become a
better and more skillful teacher. May
I realize, in some slight measure, the responsi-
bility that is mine. May I be more militant
in protecting the right of young people to
know the truth and yet more humble of my
own ability to find and interpret the truth.
May I be more positive that two and two
always make four and more doubtful that,
when the larger sum is written, I shall ever
know the final answer.



Let the School Be a Democracy



The community convention at Hamburg Junior High School is a heated campaign to which posters lend atmosphere.

FLORENCE E. ECKHARDT

Junior High School Principal, Hamburg, N. Y.

AT NO more opportune time than during the junior high school experience can the school plan an organization that will provide for active participation in a democracy. The eager enthusiasm of adolescence serves as a self-motivating agent for setting up machinery that will train boys and girls to perform the duties of good citizenship.

Let the school be a representative democracy in which the pupils learn to give intelligent obedience to authority, to respect the opinions of others, to cooperate in gaining social approval and to exercise self-control. In line with the trends in student government today, it is possible to organize the modern junior high school as a real community, with its junior citizens assuming rôles befitting good leaders and good followers. It need not be argued that they undertake complete self-government; but, instead, with the aid of their teachers, young people can formulate and put into practice a cooperative plan.

Our plan of action at Hamburg, N. Y., sets up the junior high school

as a real community with the homerooms as units of organization therein. Following a conference between the homeroom teacher and the pupils regarding the qualifications requisite to good leaders, we selected leaders. This was left to a nominating committee composed of pupils and the homeroom teacher. The pupils themselves impartially presented their best leaders as nominees for the coming election. Following the report of the nominating committee, a spirited campaign culminated in the homeroom election of president, vice president, secretary-treasurer, girl and boy ushers and councilman. If careful guidance has been administered and if pupils and teachers have caught the spirit of the campaign, there will be glory in success and good sportsmanship in honest defeat.

When the homeroom officers have been elected, the real thrill of competitive but friendly rivalry permeates the whole school. Another campaign is then launched. At this time the entire school will reach a height of enthusiasm that can hardly be paralleled in the most heated adult

campaign. Such a campaign must be carefully planned, with speeches, platforms, advertising, propaganda, all for the purpose of winning the election, wherein ninth grade presidents and vice presidents compete for the coveted honors that may be earned by any junior high school pupil. Finally, during a special assembly, the community convention is held for the purpose of electing the community officers. Here, with banners and posters lending the proper atmosphere for the occasion, the candidates make their last minute campaign speeches and their final pleas for support before their fellow citizens mark their official ballots.

Following the elections, it is possible to place real work and responsibility upon the officers. Their duties are vital. The community president automatically becomes president of the pupil council, acts as chairman at all assemblies and is the leader at all school community affairs. The community vice president is placed in charge of school traffic. Nor are these homeroom leaders officers in name only; homeroom presidents are in general charge of the

respective homeroom groups; they conduct their own business meetings according to parliamentary procedure and daily plan, organize and work with the homeroom teacher.

Vice presidents, more active than the name suggests, form the nucleus for the school traffic squad. With the assistance of deputies selected from a list of volunteers, they are responsible for orderly, yet informal, passing of classes, for fire drills and for general corridor conduct. They come early and stay late each day for the honor of serving their school community.

The secretary-treasurers also give valuable service in making accurate roll call reports four times daily and in handling the financial affairs of their rooms. The ushers, as courtesy officers, not only welcome and escort visitors and serve as messengers but also lead dismissals and fire drills. Under faculty supervision, all officers are organized as councils, with occasional meetings to solve their own peculiar problems; for example, the vice presidents, as a traffic squad, have their own problems.

The student council, composed of homeroom presidents and councilmen, is organized with both ultimate and immediate objectives in view. Not only does it function in its training for citizenship but, more tangibly, its usefulness is apparent in arousing school spirit, in promoting

general welfare and in fostering cooperation between teachers and pupil. If every member of the council is alert to the best interests of the school community, it is natural to find the group formulating its own aims in the form of a constitution. "We, the students," says the constitution, "in order to form a more perfect school organization, to develop and improve school ideals and to secure the fullest cooperation of the entire student body, do ordain and establish a constitution."

Bimonthly meetings are probably best, with a definite program of activities planned in advance by the council president and the faculty adviser. School problems are attacked, a minimum amount of adult opinion is expressed and unwise decisions are skillfully forestalled. Copies of the minutes of each council meeting are sent to all homerooms.

In furthering the work of the student council, permanent committees are appointed and supervised. Beautification, welfare, yard, flag and cafeteria committees, selected by each homeroom, function effectively on weekly shifts. Assuming responsibility in turn, while wearing their badge of office, not only fosters worthy competition among homerooms but also develops keen interest in the activities of the various committees. Friendly rivalry brings active cooperation, which is often



Homeroom councils follow parliamentary procedures at their business meetings and daily plan, organize and work with the homeroom teacher.

SCHOOL—DEMOCRACY OR DICTATORSHIP?

Students of the infinite, we analyze Life.

The school is our laboratory;
We place Life in the glass-walled test
tube of knowledge,

Temper it over the flame of experience
To discover that its structure becomes
less complex.

We painstakingly dissect it
And find it composed of precious
elements:

Cooperation, citizenship, self-control,
leadership—

Blended in character.

We inject a large portion of Life into
our veins.

We have become junior statesmen,
artists,

Business men, musicians, craftsmen,
but best of all—

Teammates.

We no longer study Life—we are Life
itself—

It throbs in our veins—our pulses
quicken.

The years hold no terror for us;

We meet them prepared, for we have
learned Life

By living it.

—Patricia Griswold, pupil
Hamburg Junior High School

found lacking when the term of service is extended over a longer period. Following is a suggested list of activities of the student council:

1. Problems of the school: (a) homeroom citizenship, (b) corridor conduct, (c) assembly conduct, (d) yard conduct, (e) snowballing, (f) safety on school property.

2. Service to the school: (a) granting charters to clubs, (b) removing unworthy pupils from office, (c) sponsoring school parties, (d) serving on assembly committees, (e) packing Christmas baskets for the needy, (f) supervising flag, yard, cafeteria, welfare and beautification committees, (g) cooperation with safety patrol, (h) building standards in attendance, punctuality and citizenship.

Our plan is psychologically sound. There is honor in having been chosen leaders by their fellow pupils; joy in their particular service to the school; distinction through significant insignia, the officer button, the safety patrol belt and the arm band indicative of committee mem-

bership, and recognition through a formal inaugural program.

This installation should be simple, serious and interesting, by the pupils and for the pupils. The past community president, who has been promoted to senior high school, makes an excellent chairman. Well qualified through past experience, he impressively states to the newly elected officer: "You have been elected president of your school community. As this is the highest honor that the citizens of this school may offer, your duties are not to be lightly assumed." He then administers the pledge corresponding to the adult oath of office and invests the new community president with his badge of office. The new leader installs his fellow officers.

While the program may seem ritualistic, it is possible to vary it by entertainment features. With careful organization, pupils and teachers witness the semiannual installation ceremony with never diminishing interest. In conclusion, the community president says, "Fellow citizens, I now introduce the presidents, councilmen and other officers of our school. They will work with us and for us in an earnest effort to make our school better. Please lend your cooperation and all work together for the ideals and standards that we love." With fresh enthusiasm and inspiration, pupils, officers and teachers pledge renewed cooperation.

Time should be provided for weekly homeroom meetings in which problems of community interest may be discussed in the democratic manner of the New England town meeting. Here exuberance learns the restraint of parliamentary procedure; good manners and fair play prevail, and ideals of good citizenship develop.

While discussions center around the lives and interests of the pupils, suggestions and general organization should come from the office of the principal or from a special committee. A properly organized group will suggest activities and materials for each meeting and will indicate something of the presentation.

Several types of programs are possible, most important of which is guidance. Problems of orientation in the seventh grades, study of aca-

demical courses in the eighth grades and final election of courses in the senior high school by the ninth grades are vital to pupils in their planning.

Seasonal interests find a place in the homeroom calendar, and there is provision for choice on the part of the respective groups: debates, talks, demonstrations, radio programs. Homerooms are allowed to serve as clearing houses for both local and community problems, such as elections, reports and attendance. Each program has a definite objective and final evaluation is made at the close of each meeting. The class secretary makes a formal report, indicating briefly the success or failure of the

There is hardly a formal class in the school that will not improve under some form of pupil leadership.

Consider, for example, the print shop. Which is better, the old type of teacher dominated group or a class that includes on the roster a shop superintendent, a composing room foreman, a press room foreman, a bindery foreman, a stock keeper, a record clerk, a librarian, a safety first inspector and a proof-reader?

This setup may be like the "Mexican army—all officers" but to which class would you prefer to belong if you were a boy?

If you were a girl, wouldn't you enjoy working in a home economics



It is possible to place real work and responsibility upon the pupil officers.

meeting, and something of constructive pupil criticism, which may be valuable to the executive committee in outlining homeroom meetings.

Although providing material for assemblies is not a major responsibility for the homerooms as separate units, that value may arise incidentally in their meetings. Parts of programs may occasionally be used by the assembly committee, whose "scouts" are ever watchful for program possibilities.

The community president is chairman of all assemblies. Even if a distinguished speaker is present, the school leader should make the formal introduction.

Participation need not be limited to so-called extracurricular activities.

department that includes beauticians, costume designers, dietitians and hostesses? Isn't composition writing more fun if pupil editors in each English class are continually choosing and proofreading material and assisting classmates in creating something worthy of publication in the school magazine? There are certainly countless occasions for active cooperation in every subject in the school curriculum, as well as in the extracurricular program.

These junior citizens living in a representative democracy must exercise their rights and shoulder their responsibilities. In no other way can they fit themselves for the duties of supercitizenship that the times demand of adults.

Why Administrators Change Jobs

ERICH SELKE

Professor of Education
University of North Dakota

SCHOOL teachers have acquired the reputation of moving frequently from position to position, resulting in a large annual turnover. It has been the general belief that this migratory tendency is a characteristic of the classroom teacher and is not a characteristic of the administrative head of a school system, who usually retains his position for a much longer period. Yet even in these positions changes occur much too frequently and often are detrimental to the progress of the school.

Impressed by the large number of new persons engaged annually as administrative heads of school systems in North Dakota, a study was made to determine how often superintendents move. This study covers a period of sixteen years, beginning with the school year 1922-23 and closing with the school year 1937-38. The data were obtained from the state educational directory, published annually by the department of public instruction. The study included 322 schools that employ four or more teachers. These schools were selected because it was possible to determine the person who had been at the head of the school system during the sixteen year period.

First, the schools were checked to discover the number of persons who had served as the administrative head of the school. Nine school systems in the state had retained the same person as the administrative head during these sixteen years. This was a little less than 3 per cent of the schools studied. Four of these superintendents were in school systems employing eight or less than eight teachers and four were in systems employing more than 20 teachers.

Fifteen of the schools had had two persons as administrator during these sixteen years. There were 27 schools that had employed 3 administrators; 48 schools, 4, and 51 schools, 5.

At the other extreme were two schools that had employed 12 persons as administrator during the sixteen year period. Six schools had had 11 persons; 6 others, 10; 18 schools, 9, and 42 schools, 8. The most frequent changes were found in schools employing less than 10 teachers.

It is not worth while for an administrator to plan a consistent school

One may wonder what has been the fate of these individuals. Many, of course, are still engaged in administrative work. Others have accepted classroom teaching positions in larger school systems or in colleges. Some have left and are teaching in other states. A few are dead and some have been dropped for various reasons. A large number have left teaching to enter fields of work in which there is greater security and more attractive salaries. Many who have left teach-

Number of Administrators Employed by 322 Schools During Sixteen Year Period

Admin.	1	2	3	4	5	6	7	8	9	10	11	12
No. Schools ..	9	15	27	48	51	59	39	42	18	6	6	2

program covering a period of years if there is no possibility of remaining long enough to see it through. The schools must suffer. The administrator who realizes that he is in a community in which changes are frequently made will be inclined to devote his efforts to obtaining another position as soon as possible. It is the children who are being penalized by this short-sighted policy. If there were assurance of longer tenure, many administrators, even in the small communities, would remain for many years and would undoubtedly render more efficient service.

The accompanying table shows the number of schools and the number of persons who had been administrators during the sixteen year period. More than one half of the schools have had six or more administrators during the period covered by this study.

A tally was made also of the total number of individuals who had served as administrators of these 322 schools. A total of 1255 persons had been employed in that capacity by these schools. This gives approximately an average of four persons per school. This represents a heavy turnover and shows clearly that administrative work exacts a heavy toll.

ing have proved themselves efficient in the new fields of work and have become leaders.

But such a large turnover deserves thoughtful attention. Many young men find that advancement is slow, that salaries are inadequate, that there is little security of position or that teaching is not to their liking and so they drop out. Often housing problems necessitate moving. Incompetents are compelled to leave. The ambitious use the smaller schools as stepping stones to better positions in larger school systems. In this way the smaller school system becomes the proving ground for the larger schools.

Women are not likely to be chosen as school administrators. Only 112 out of the 1255 persons were women. The study shows that women were chosen more often in the early years covered by this study than in later years.

How long the administrator remains in one position is of interest. It was found that the median number of years of service in a school was approximately two years and that only one fourth of the administrators remained in the same position more than four years. There has been a decided trend in recent years for the turnover to be less than it was in the

child's everyday life as one of our first major objectives and thereby lay the foundation for the quantitative thinking of children. If a child needs drill in order to better understand these relationships, then this drill should be provided, if it is meaningful drill.

Also with reading. It isn't just comprehension and speed in reading with which we should be concerned, but also those extremely important reading objectives such as the pleasure one gets from his reading, the to which reading is a means to an end, that is, to a purpose.

We tore a page in this magazine to show how easy it is to mend with

What would we offer to this problem? Certainly we have no right to

the way of cause they had ad this line in sch rigid courses grade stand "70 per cent place in su

Immediate hear the criticism that such "idealistic philosophizing" has little to do with the situation faced by a given teacher with a particular group of children who, as Mrs. Goodman might say, "have not been taught to make most of their natural endowments. Certainly the children should not be Each teacher's duty at all times is to that each child in her charge makes best possible uses of his natural

The place for any teacher to b the situation with which she y given time. The first step in a where as simple a presentation as possible were going right over the children's heads would be to throw "The Spectator" or whatever the problem before the class happened to be "out of the window," Mrs. Goodman to the con-

penal institutions in this country most of the inmates do not have even a sixth-grade education. Could their of interest in subjects they could ter and the repeated fa have had anything to ing school so early?

Those pupils culty in le rials

facing public and secondary the eval- uation of its traditional curriculum in

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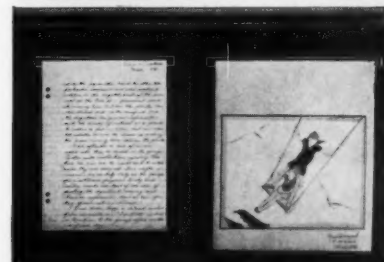
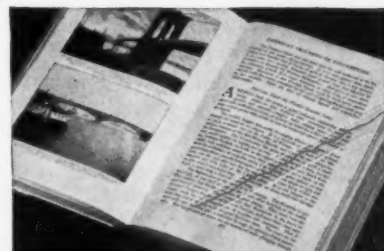
MENDS: Books and sheet music...window shades...transparent materials...maps.

HOLDS: Papers to blackboards...scrapbook clippings...snapshots in albums...posters and bulletins.

SEALS: Packages...bulky envelopes...labels and covers to bottles.

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Canadian Duxco Abrasives Ltd. Toronto, Mining & Mfg. Co.

early years of the period that this study covers. The turnover for the same 322 schools for the year 1937-38 shows changes were made in 87 schools, or about 27 per cent.

As a rule, the larger the school system, the longer the tenure of the superintendent. Large cities are reluctant to make frequent changes, realizing that such changes often have a disastrous effect upon the school and school boards are careful to select men who have proved their ability.

The picture presented is not a pleasant one. Many excellent men have been sacrificed in the frequent and rapid turnover; on the other hand, many unfitted for administra-

tion have been eliminated. Though one might wish for more security of position, one cannot help but feel that out of the process have come stronger administrators who are a credit to teaching.

Usually the fact is that those who have remained and who have advanced in position are survivals of the ablest. They have learned to adapt themselves to changed community conditions and are blessed with political acumen and sagacity which have helped to tide them over trying times. The administrator who has remained in teaching has been tried and found not lacking in those qualities desirable in the administrator of a school system.

Improving Attendance

DWIGHT L. WILSON

Principal, Elementary School
Jacksonville Beach, Fla.

AS A means of improving the attack on attendance problems in states wherein school delinquency is a major consideration the following recommendations are set forth.

Exemptions: Exceptions to compulsory attendance regulations, both statutory and administrative, should be limited to the following conditions:

1. Mental or physical disability for school duties, satisfactory proof of such incapacity to be based upon examination of the child by properly qualified persons, whose appointments are to be made concurrently by the school and by the social welfare authorities.

2. Satisfactory completion of the twelfth grade in high school, as prescribed by the state course of study, or the equivalent of such work if completed in another state, this completion to be determined by the school authorities.

3. Attendance at a private or parochial school that meets the requirements of school authorities and of state law.

4. For any child from 6 to 9 years, inclusive, residence more than 2 miles from a school bus route, and for any

child from 10 to 18 years, residence more than 3 miles from such transportation.

5. Any unusual cause acceptable to the attendance officer of the district in which the school is located.

Age Span: The law should provide for the compulsory attendance of all children from 6 to 18 years of age for the full length of the school term.

Length of Term: The state should provide for a minimum of nine months of school as a legal requirement.

Legal Machinery: The state board of education should be given the authority to appoint a state supervisor of attendance whose duties would be: (1) to organize a unified system of attendance accounting and service for the state; (2) to issue special certificates to teachers who are to serve as attendance workers, such workers to be given wide discretion, and (3) to provide bases for cooperation with state and county social welfare workers.

Personnel: Definite standards should be provided as mandatory qualifications for the appointment of visiting teachers or other attendance

workers. These standards should include:

1. Graduation from a college or university with a major each in education and in social service work.

2. Three years of experience in public school work.

3. Desirable traits of personality, such as ability in leadership, spirit of service, love of humanity, alertness, energy, high development of social interests, ability to hold the confidence of boys and girls and ability to meet the public.

4. Thirty years of age, minimum.

School Attendance: The schools should furnish necessary records and information to the state supervisor of attendance, should cooperate with his department and should be subject to the rules and regulations that he may establish. The curriculum should provide effective training to the child who may legally withdraw from school before the completion of the high school course. Special classes should be organized, if necessary, for the maladjusted pupil. Schools should be provided for the deaf, blind, crippled and otherwise handicapped children who are not able to attend regular public schools.

In addition to the foregoing specific recommendations, the following general recommendations are offered: (1) that coordination and interrelationship between school attendance regulations and child labor laws be improved; (2) that child labor acts be improved so as to exclude any children from occupational employment that are being exploited.

In this connection, it is recommended that: (1) labor laws be made more comprehensive in the number and types of occupational work that children are permitted to perform; (2) the general employment of children be permitted only at the completion of the ninth grade; (3) the age at which compulsory attendance and child labor regulating provisions apply be raised; (4) the maximum number of hours that children are permitted to work each week be revised downward; (5) increased protection be extended to minors against occupational hazards, and (6) the responsibility for accidents incident to occupational employment be laid upon the employer.



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Guidance for Ninth Graders

M. R. STOKESBARY

Director, Research and Special Service
Alhambra City Schools, Alhambra, Calif.

THE Alhambra City High School, Alhambra, Calif., has changed during the past few years from a relatively small four year high school with plenty of room and opportunity for pupil-teacher acquaintance to one of large size, acutely crowded and having an enrollment made up of pupils from several elementary districts.

With this crowded condition, the large number of pupils per teacher and the lack of time and room for consultation, there is little pupil-teacher contact outside of the regular classes. Furthermore, many of the entering ninth grade pupils come with little knowledge of the school, the community and the cultural requirements of educated persons. Many of them are still undecided as to their vocational choice and uninformed as to the proper method of studying a vocation.

During the last three years, a comprehensive homeroom guidance plan has been carried on in an attempt properly to orient these pupils during the ninth year. However, because of the heavy load on the teachers and the numerous interruptions during the homeroom period, some of the teachers do not look upon the homeroom idea with favor, and the plan is not considered adequate or satisfactory as a permanent procedure.

New Type of Social Science

Because of this problem and because the freshman offering in the social science department has been confined to ancient and medieval history, it has been considered desirable to develop a more functional type of instruction for ninth grade pupils as a social science course.

The objectives of this program are largely guidance and may be indicated briefly as follows:

1. To acquaint the pupil with the physical plant, school regulations, traditions, services and activities and to develop appreciation of them.

2. To develop a knowledge of social courtesies, manners and conven-

tions, particularly applicable to high school pupils.

3. To give pupils a knowledge of the simple principles of budget and thrift and to develop a desire on their part to follow them.

4. To provide vocational and educational guidance leading to an intelligent enrollment for the tenth grade.

5. To provide a practical and functional type of knowledge regarding community activities.

The Aim Is to Orient Pupils

All of these objectives are functional needs of ninth grade pupils coming into a large four year high school from several elementary schools and several communities. These aims also are closely related to the social development of the pupils. They are for the most part arranged in the order of their necessity and probable times of greatest interest.

When freshmen pupils first come into a high school they need to know how to find their way around. Then they need to know about attendance regulations, library permits and other regulations that are prevalent to some extent in every high school. They need to know something about the special departments, such as book room, library, health department, counselor's office and other departments set up to assist pupils and to supplement the regular classroom procedures. Soon they become interested in pupil activities and school traditions. The sooner pupils become well-informed, active participants in these things, the better school morale becomes. For these reasons, this first objective is considered extremely functional for pupils just entering high school. The unit lasts for half of the first semester and is given the title "Your High School and You."

As soon as pupils become oriented to their physical environment, they have a tendency to form social acquaintances and to try to obtain rec-

ognition in the high school social order. Thus the way is paved for a broad unit on courtesy, etiquette and good manners under some such title as "Your Associates and You." Instruction in this unit proceeds easily from election of class officers and discussion of various clubs to the discussion of pupil social functions in the high school and proper conduct at them.

The discussion of social relationships naturally leads to a discussion of what to wear. Such discussion is then carried over into how much should be paid for clothing, sweets, automobiles and other commodities used by high school pupils. This leads naturally into an elementary unit on consumer education on budget and thrift, known as "Your Finances and You." This completes the scope of the work for the first semester.

Thrift Precedes Vocation Unit

The unit on budget and thrift serves as transitional instruction, carrying over a little into the second semester as an introduction to the units that follow and as a means of absorbing pupils from other classes on the same subject where the instruction may have varied somewhat. From this point, the instruction is directed into discussions of how to make the money to spend for the things that pupils need and want. This serves as a good introduction to the unit on vocational guidance, which is called "Your Life Work and You."

It has been found that pupil interest in vocational and educational guidance reaches one of its high points during the first half of the 9A semester in Alhambra City High School because of the registration system under which pupils make out their enrollment cards for the next year at the middle of the previous semester. Therefore, by placing this unit at this place in the general se-

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quence of the course, the work is made far more functional than at any other time.

Vocational and educational guidance instruction proceeds from specific personal problems to a broader scope of community vocational problems and gradually from vocational civics to community civics. This unit is called "Your Community and You." The investigation and participation in community activities are gradually expanded toward inter-community problems and serve as a foundation for broader and more technical instruction in social science.

In general, as the description in the preceding paragraphs indicates, a serious attempt is being made to organize the work on the basis of large units based on the progressive development of the pupils' interests.

The detailed sequence of instruction within each unit is left to the teacher so that she may be free to progress according to the interests of her classes and so that she may individualize the activities within each unit according to the interest and ability of each pupil.

In the case of pupils who have high intelligence and a background of training and experience that make them more independent and resourceful, the vicarious learning experiences may come largely through voluntary, extensive, unassigned reading. However, in the case of those of more limited abstract intelligence, assignments of reading and duties will be necessary. For the latter group, especially, it will be highly desirable to have a number of books pertaining to vocations, social usage, thrift and community civics available in the classroom.

With this equipment, supplemented by pupil reports, class excursions and visiting speakers, the teacher is able to obtain pupil progress through class participation rather than through study hall or home preparation. This is highly desirable in Alhambra City High School at the present time because of the crowded condition that necessitates the use of the library for study hall, thus curtailing its use for reference purposes. It is further desirable because of the fact that many of the pupils enrolling in these classes have poor conditions in the home for study.

First, Ascertain the Cause

ALBERT EARLEY

Delaware Department of Education

"MY FOURTH grade pupils are having trouble with long division." This was the problem that one of my teachers put up to me. It was easy to see that the children were having difficulty but the teacher had not ascertained why they could not work long division. In a short time I discovered that the children's trouble was due to the fact that they did not know the multiplication tables.

Certainly, the pupils could not work long division as long as they were weak in multiplication. When they had reviewed and mastered multiplication their troubles with long division disappeared.

The pupils of a sixth grade were failing in arithmetic. I wanted to know why they were failing. I soon ascertained that they were taking their books home and father, mother and older brother or sister did virtually all the work. Hence, in school when the children were asked to do independent work they were helpless. I prescribed no home work. My prescription was filled and the children had no more serious trouble in arithmetic.

Frank was not doing satisfactory work in eighth grade mathematics. The teacher had not found out why he was not doing satisfactory work. Careful observation revealed the reason for Frank's difficulty. He was timid and the other pupils laughed at his mistakes and slowness. This destroyed Frank's self-confidence. I told the teacher to stop the pupils from embarrassing him further. When this is done his work will improve.

Recently I found a fourth grade class that was weak in solving problems. Why couldn't they solve problems? Because their reading was unsatisfactory. The teacher's job was to strengthen the children's reading comprehension as a basis for other subjects.

In many cases of poor work in mathematics the reason is that the pupils are permitted to guess instead of reason. The teacher can destroy

this habit if she applies the rules of psychology that pertain to habit.

Why do children frequently make mistakes in mensuration? This is often a language difficulty. Children will try to find the perimeter of a figure when they do not know what a perimeter is. Because some pupils do not have a clear idea of area they will talk about feet when they should say square feet. And because a teacher will tolerate it, children will write square feet when they find volume. Precision in using mathematical language should be one objective of all mathematical teaching.

In a one teacher school a fifth grade, consisting of only one pupil, was having serious difficulty in writing a composition about flying kites. The teacher had assigned this subject because it was the next lesson in the book. I couldn't help the boy until I ascertained why he was having trouble. The boy had never seen a kite! Obviously, the boy should have been asked to write about something with which he was more familiar.

In another one teacher school several children were doing poor work in writing about a skating party. Why? Because most of these children had never skated. They could have done better work if they had been asked to write about cows, chickens, pigs or other things well-known to them.

One girl was not doing satisfactory work in any subject. I couldn't tell the teacher what to do until I knew why the child couldn't do satisfactory work. The child's hearing was temporarily impaired because the wax had hardened in both ears. A doctor removed the wax, the hearing was much better and the girl's work improved. There is much literature on remedial reading; it is easy to learn why children cannot read.

Home conditions, poor attendance and a low I.Q. may answer the question of why children do unsatisfactory work. Until we know why they do poor work we cannot help them. We merely grope in the dark.

Better Go Superior

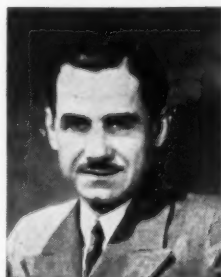
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What Do Tenure Laws Protect?

M. M. CHAMBERS

Specialist in School Law

LAST month The NATION'S SCHOOLS carried an article discussing five recent cases demonstrating that dismissals of permanent teachers under tenure laws can and do occur.¹ It was shown that tenure may be terminated in specific instances either by abolition of the position for valid reasons or upon proof by orderly procedure of incompetency or misconduct of the teacher.

To balance the picture, let us look at other cases in which attempted dismissals have failed. We shall see that the courts will not allow permanent teachers to be "railroaded" out in disregard of the statutory procedure or by methods invented to circumvent the law.

Protection Against Whims

In the first place, permanent teachers have a measure of protection against sudden loss of their positions solely because of the whims of newly elected members of the school board who come in "with an axe to grind," flushed with victory after a bitter campaign. A board of education is properly a continuing body charged with long-term planning. It is fitting that the induction of two or three new members from time to time should not produce an arbitrary termination of the services of teachers, especially when their fitness and competency are not attacked.

This principle was sustained in a Pennsylvania case. In November 1937, the local school board, upon the recommendation of the superintendent of schools that additional teachers were necessary, employed a new teacher in the high school, effective immediately. Three of the seven members of the board voted against this measure. Early in December two newly elected members took office and the board promptly met and declared the new teacher's con-

tract void by a vote of 5 to 2. She was within the protection of the tenure act and took her case to the courts.

The school board argued that her contract was void (by its own *ex cathedra* declaration) and that no rights are conferred by a void instrument. The supreme court of the state soundly rebuked this contention. "If all that were required to avoid a teacher's contract were a mere statement by the new board that the teacher was not necessary at the time of her appointment, the safeguards of the tenure act would be valueless. . . . There is nothing in this record to show that the old board abused its discretion or that any circumstance appeared that would cause the contract to be invalid."

The court continued with a lucid exposition: "It may be true that if a board, going out of office, should overload the school district with unnecessary teachers for political or personal reasons, such action would be an abuse of discretion without justification, and the contracts so made would be void. But such action has not been shown; on the contrary, the superintendent recommended to the old board the necessity of additional teachers and the classes were still large after the new appointees began the performance of their duties."

Cause Must Be Shown

As to the question of the present necessity of the new teacher's services, this is not a matter of the invalidation of a contract, said the court, but of its termination. In such cases both due notice and proper cause must be shown. In earlier cases such causes as the abolition of a department in the school or substantial decrease in the enrollment in the only courses for which a permanent teacher was qualified have been held valid. But here the contention goes far beyond any previous case

and would destroy the purpose of the tenure act.

At this point, quoting from one of its own recent opinions, the court eloquently stated the object of the tenure statute as "the maintenance of an adequate and competent teaching staff, free from political or arbitrary interference, whereby capable and competent teachers might feel secure and more efficiently perform their duty of instruction."

Accordingly the lower court's order to reinstate the teacher and its simultaneous judgment directing the school board to pay her salary from the time of her dismissal to the time of the trial were affirmed.²

Local Ruling Necessary

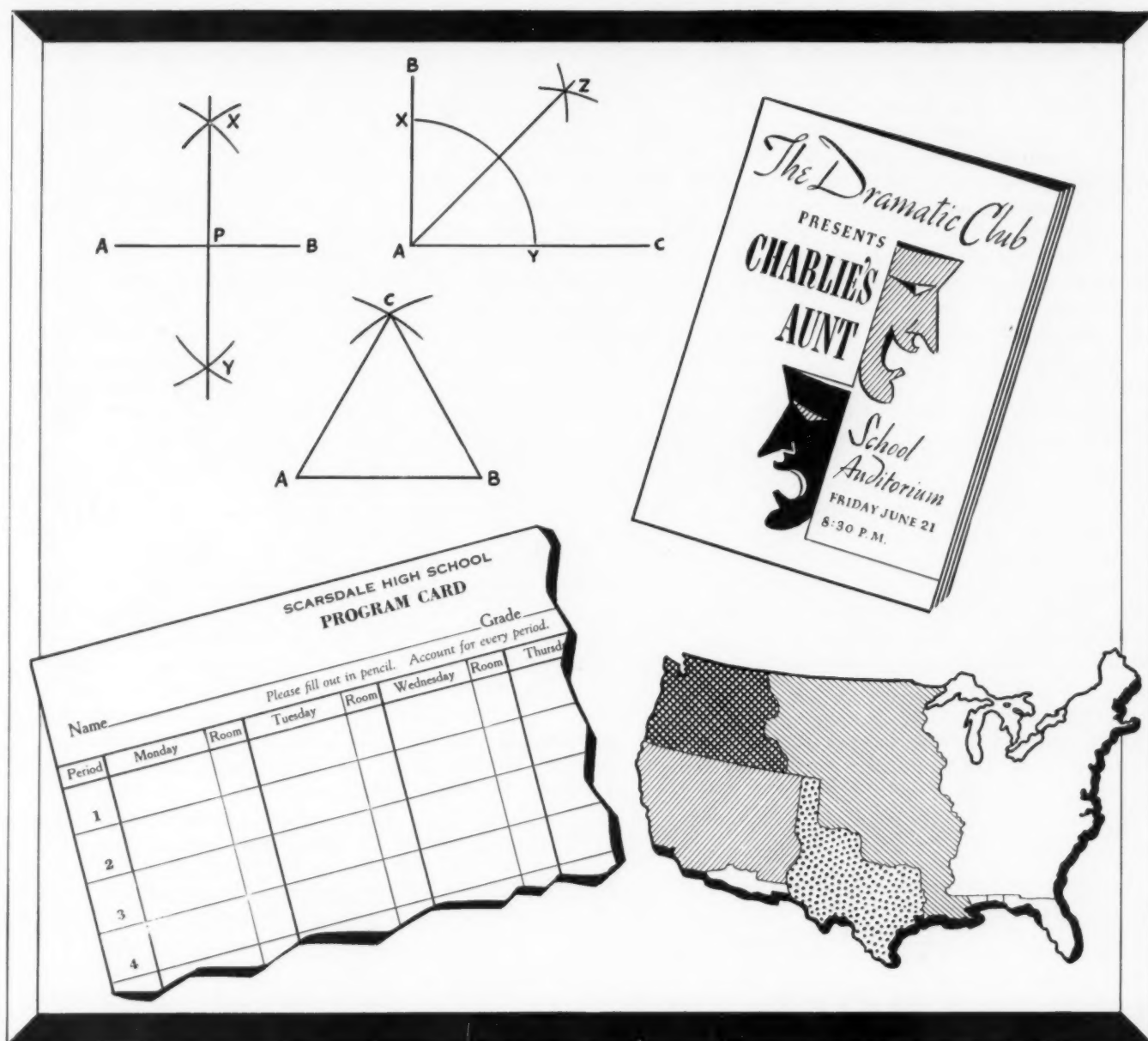
In another Pennsylvania case a permanent teacher was suddenly notified by the school board in the spring of 1938, without any previous preferring of charges or any hearing, that her services would no longer be required. From the evidence it appeared that the board's only reason was that she was a nonresident of the district and that there was no lawful ground for discontinuing her employment. The abolition of her position, if such it was, was apparently not in good faith. The court ordered her reinstated.³ The board could have adopted a rule requiring all teachers to reside within the district, thought the court, and violation of such a rule would be a cause warranting dismissal. In this case no such rule had been adopted by the board.

A California case illustrates again the familiar principle that tenure laws cannot be circumvented by transferring a permanent teacher to a different position with intent to abolish that position soon thereafter. It also shows a common feature of tenure statutes, namely, that a permanent teacher must be given precedence over probationary teachers

¹Langan v. School District of City of Pittston (Pa.), 6 A. (2d) 772 (1939).

²Jones v. School District of Borough of Kulpmont (Pa.), 3 A. (2d) 914 (1939).

³Chambers, M. M.: Tenure Does Not Lock the Exit, The NATION'S SCHOOLS 25: 66 (April) 1940.



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when the staff is reduced, provided that the permanent teacher is qualified to perform the duties to be retained. Thus a local board of education acted unlawfully when it assigned a permanent teacher as school librarian and one year later abolished that position and dismissed her, at the same time retaining 21 probationary teachers, many of whom were performing duties for which she was legally qualified.⁴

The California tenure law, as amended in 1935, seeks to afford teachers a fair opportunity to correct their remediable faults to avoid dismissal for incompetency. The pertinent section reads: "Governing boards of school districts shall not act upon any charges of incompetency, other than incompetency due to mental or physical disability, unless during the preceding term or half school year prior to the date of the filing of such charge, and at least ninety days prior to the date of such filing, the board or its authorized representative shall have given the employe against whom such charge is filed written notice of such

incompetency, specifying the nature thereof with sufficient particularity to furnish the employe an opportunity to correct his faults and overcome his incompetency."

When a board dismissed a permanent teacher without being able to show compliance with this section, the trial court's judgment sanctioning the dismissal was reversed. The substance of the charges consisted of failure to become familiar with the rules of the board, failure to preserve discipline in the classroom, absence from school without permission, disputing with other teachers in the presence and hearing of pupils and going into fits of rage and abusing pupils and fellow teachers. The court of appeal held that all these offenses must be regarded as remediable, making the statute just quoted clearly applicable to the case.⁵

A school board cannot assign a permanent teacher to new duties for which she is not legally qualified and then dismiss her for that reason. A Pennsylvania teacher duly licensed for certain courses that she was teaching, but possessing no permanent

certificate as school librarian, was assigned additional work as librarian and thereafter dismissed because she was not licensed to perform the duties of that position. The court held that in these circumstances no valid cause for the termination of her tenure appeared.⁶

Everyone knows that when a statutory procedure for dismissal is prescribed, it must be substantially followed. Yet we occasionally find school boards making curious, unnecessary and unwarranted deviations that may result in a reversal of their decisions solely on account of gross procedural defects. In a Pennsylvania case in which a woman teacher gave birth to a child five months after her marriage, the agreed facts left no doubt that an act of immorality could be proved, but in its hasty attempt to dismiss her the board failed to comply with the statute in two important respects and consequently she obtained an order of reinstatement from the superior court.

The board's first act was to send the teacher notice that she was dismissed for immorality and that a hearing would be held on a specified date at which she could appear and show cause why she should continue to hold her position. She was present with counsel at the appointed time and place and was later notified that the board's decision was for dismissal "by four fifths majority." All this was ineffectual because the board had placed the cart before the horse by presuming her to be guilty and requiring her to prove her innocence. Moreover, no record had been made of the roll call vote on her dismissal, as required by statute.⁷

The upshot of these cases is that boards of education in states having tenure statutes can save themselves much useless litigation and frequent embarrassing defeats if they will familiarize themselves fully with the purpose of the tenure legislation and also give attention to its detailed provisions with a view toward using them legitimately when necessary rather than toward circumventing them.

⁴Appeal of Womer (Pa.), 5 A. (2d) 638 (1939).

⁷In re Swink's Case, 132 Pa. Super. 107, 200 A. (1938).

⁴Davis v. Gray et al. (Cal.), 84 P. (2d) 534 (1938).

⁵Fresno City High School District v. De Caristo (Cal. App.) 92 P. (2d) 668 (1939).

As Others Say It

Compiled by JOHN G. ROSSMAN
Superintendent of Schools, Warren, Pa.

No man is free who cannot command himself.—EPICTETUS.

Education—a debt from present to future generations.—GEORGE PEABODY.

Doing nothing for others is the undoing of ourselves.—HORACE MANN.

The men who catch the gleam—they are the world's true leaders.—'NUMA.'

Who plays the tune to which our dancing feet are led?—FIONA MACLEOD.

Be modest in speech but excel in action.—CHINESE PROVERB.

As though the emerald should say, "Whatever happens, I must be emerald."—MARCUS AURELIUS.

The busy man is troubled with but one devil; the idle, by a thousand.—SPANISH PROVERB.

He who has good health and owes nothing is both young and rich.—DANISH.

To succeed you must earnestly desire and this desire must shorten your sleep.—OVID.

Be glad of life because it gives you the chance to love and to work and to play and to look up at the stars.—HENRY VAN DYKE.

Who drives me forward like

The myself striding on my back.—TAGORE.



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A Repair in Time—

RUEL E. DANIELS

District Clerk and Business Manager
Board of Education, Belleville, N. J.

SCHOOL plant rehabilitation must not be confused with operation or ordinary janitorial service. It consists of those steps taken to renew the building or grounds, not the work done to preserve or clean them. The plant must be rehabilitated each year and the logical time for this work is during the summer vacation period.

In Belleville, N. J., where a \$3,000,000 school plant is maintained, the plan is to obtain recommendations for repairs by means of a questionnaire from the principals. Their recommendations, together with those of the business manager, are condensed and analyzed by the building and grounds committee of the board of education. The items for repair are decided upon. Cost figures, either actual or approximate, are obtained and a budget item for repairs and replacements is submitted by the committee to the board of education. This budget is adopted by the board and placed before the people at a public school election.

Labor and Material Method

In the past few years, whenever it has been possible, the labor and material method has been used in making repairs instead of the contract method. We have been able to employ skilled workmen who, because of the fact that they were not forced to make a low contract bid, gave excellent results. For example, two renovations were made in heating plants. Both jobs consisted of approximately the same amount of labor and material. One was done by contract and for the other an excellent steamfitter was employed. The second job cost approximately 40 per cent less than the first one, which was carried out under contract. The exteriors of several schools, two auditoriums and a great many classrooms were painted by purchasing the material and employing the painters. The board of education gained materially

by this method, both from a cost and a quality standpoint.

Careful check on the masonry of all buildings should be maintained throughout the year. It is profitable in the long run to employ a man who is sufficiently versatile to enable him to do all types of masonry work. Beginning in the spring of the year he can take care of the pointing of mortar joints. Leaky walls, especially parapet walls, will create a great deal of hidden damage. It is much cheaper to keep a building well pointed. We have found that expensive waterproofing jobs are not necessary if the masonry is periodically inspected and maintained.

The carpentry work is separated from the list of repairs and given to two able carpenters. Bids are received on new sash. The carpenters, who are paid by the board, install them. Exterior doors are replaced when necessary. Care should be taken in the specifications for exterior doors. They must be so constructed as to furnish a minimum chance for rot and also must be tough enough to stand the banging.

Two years ago we purchased a portable sanding machine, and employed a teacher to refinish the desks. During the two months of the vacation period 1900 desks were refinished at an average cost of 15 cents per desk.

Electric and plumbing work in Belleville is done by the electrician and the maintenance man, who are employed throughout the year. Both men have reduced costs far beyond the wages they receive. Our contention is that a man is valuable and his employment justified if he reduces the cost equal to the salary he earns.

There are a great many jobs to be done during the summer that necessitate bidding and contract work. They are specialties and mechanics for this particular type of work are not easily obtainable. Specifications must be drawn and contracts let.

Heating and ventilating problems should be carefully noted during the winter months and operating difficulties taken care of immediately. There are many repairs and alterations that must be reserved for the summer months. Unless they are checked and a memorandum made while the heating plant is being operated it is possible that they may be forgotten.

All vacuum traps should be inspected during the summer. The vacuum pump, because of its constant use, should be cleaned and repacked. The ventilating units should be overhauled and thoroughly cleaned. When oil burning equipment is used the burner and the preheaters should be cleaned and the sludge removed from the oil tank. All motors throughout the system should be inspected thoroughly. A free running and clean motor will reduce the electric consumption materially.

Improve Floor Treatment

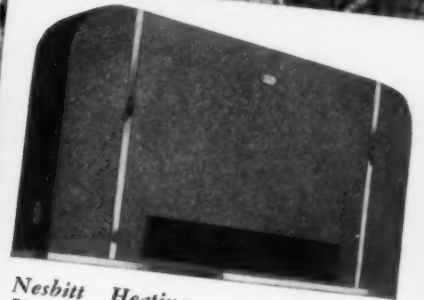
Business managers or those responsible for the maintenance of schools have for the past few years been discussing and trying various methods of eliminating the insanitary and obviously dirty mineral oil treatment of floors.

Oil used to treat floors has been of all grades and prices. The cost has ranged from 3 cents to 17 cents a gallon. Floors were not cleaned. They were merely re-oiled, sometimes to such an extent that the oil penetrated entirely through the floor. The reason for this method of floor treatment was that it was thought to be more economical and that it allayed the dust when sweeping.

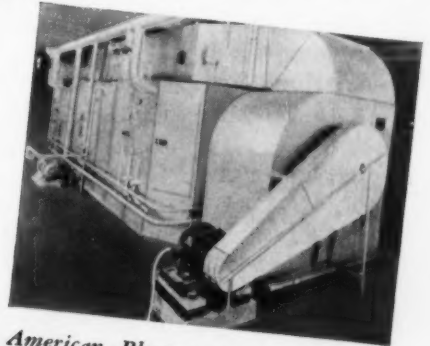
The business manager of today, who has had the advantage of association with other business managers through county meetings, state meetings and national conventions, has come to realize that improvement can be made in floor treatment, both economically and from a sanitary standpoint.

Belleville has been experimenting, having used several different materials and methods of application. Varnish seals of various kinds, for

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example, have been applied as recommended by the manufacturers. Our conclusion is that a varnish seal is merely a surface treatment no matter how applied. It lasts only so long, usually much less than a school term. The floor must be treated at least once a year. The fact that it is a varnish seal prevents penetration. We have found it impossible to drive a varnish seal into wood, especially maple. Also, when refinishing a varnish sealed floor, a spotty surface

is likely to result because of the varnish being worn more in certain spots.

Several rooms and a gymnasium have also been treated with a seal, which we may call a vegetable oil seal. This, it has been found, lasts longer, needs no new application each year and gives a better appearance because the pores have not been closed with varnish. Vegetable oil seal is compounded to get penetration. It needs no buffing, and, there-

fore, is more economical. The cost of material and labor for an ordinary classroom will not exceed \$5. This cost represents the entire cost for a period of at least five years. A wool push broom may be used as easily as on a varnish sealed floor.

There is always a great deal of exterior iron work in a school plant. The old method of keeping this in repair was to scrape all rust spots, apply red lead and then paint the iron with a good grade of paint. Aluminum paint, which has been used lately, has proved lasting and attractive. There are several grades of aluminum paint and it is a waste to use a poor grade. All iron work, no matter how inaccessible, should receive attention before it becomes so pitted with rust that the cost of repair doubles.

The equipment of a school represents a large investment and during these times it is increasingly difficult to find funds with which to purchase new equipment or replacements. School employes and pupils should be taught care in the use of equipment in the schools. As a general rule, it receives greater abuse than is necessary. Each summer repairs must be made and these repairs should be anticipated.

Roof repairs should be made by a qualified roofer and usually on a contract basis. Specifications should be drawn and bids received. An expensive roof is an inexpensive roof in the end. Leaks in a roof may eat into the heart of a building, causing greater damage and a greater repair cost than an expensive roof. One should always try to obtain a bonded roof.

It has been our maintenance experience during the past few years that we have spent to save. It is cheaper in the long run to keep the school plant in the best of condition. Many headaches during the winter months are avoided because of the fact that the business manager has anticipated his troubles and rectified them during the summer.

There is no reason why a school plant should not be operated as efficiently as an industry. The corporation heads owe this obligation to the stockholders and a board of education or its business manager owes the same obligation to the taxpayers.

Forming Good Food Habits

IRENE TRACY

Dietitian, Alfred Plant Junior High School
West Hartford, Conn.

EIGHT years ago, we had no thought for a health program in the Alfred Plant Junior High School cafeteria, West Hartford, Conn. A varied menu was prepared and the pupil was permitted to choose what he wished. Unpopular foods or the foods difficult to eat were coming back untouched, so gradually we formed the habit of going among the pupils before they returned their trays to request that they at least taste the unpopular food or eat half of the lettuce.

In time, the pupils accepted the manager as a familiar figure and did not hesitate to express their opinions, favorable or otherwise. This check-up also included the lunches brought from home so that little by little more dark breads and vegetable fillings were used.

Gradually our menus have changed. Although still selling the more expensive meat dish, a 10 cent vegetable or salad plate has been introduced. Often there are four or five vegetables from which to choose and the counter women try to please the pupil by making combinations to order. Sometimes they are weird selections but nutritionally balanced, nevertheless. Occasionally the pupil is requested to exchange what he has chosen, if it is too badly balanced. To accommodate pupils bringing lunches from home, a wagon is set up where soup, milk or cocoa and fruit are sold as supplements.

We are working toward the integration of classes to teach good food

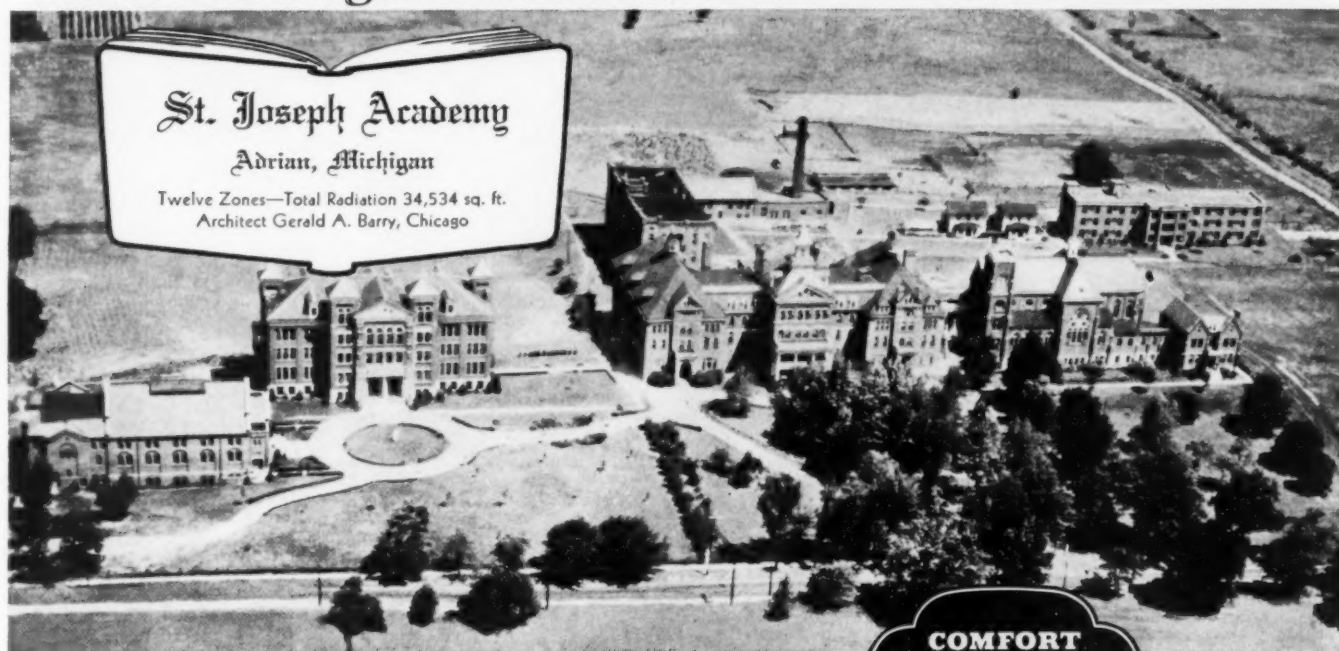
habits. With the consent of the superintendent and principal, the science class was asked to conduct a white rat experiment to prove the value of milk. This class also removed the calcium from bones and performed a blood clotting experiment.

Hygiene classes made posters of balanced lunches using the cafeteria menus as a guide. They are keeping a record of their heights and weights to try to improve them by the end of the term. An English class conducted a nutrition project and at a tea for the mothers a representative of the class gave a short talk on what the class had collected.

In checking the trays as they passed the cashier's desk, the manager noted that a number of the pupils, especially ninth grade girls, chose a dessert and candy for their lunches. In an after-school interview, the girls argued that at home it was necessary to eat what they were supposed to, so that at noon they felt it would not matter if they ate what they liked. A few days later some were overheard expressing pity for the caged "no milk rat." It was an opportunity to express sympathy for the "no milk girls." The point was obvious. Their trays now are likely to have a salad or milk.

Our records of daily sales show that the sale of the protective foods has increased. Dark breads for sandwiches are becoming more popular and are even increasing the number of sandwiches sold.

"Coal consumption reduced to 1600 tons even though radiation has been increased 40%"



St. Joseph Academy

Adrian, Michigan

Twelve Zones—Total Radiation 34,534 sq. ft.
Architect Gerald A. Barry, Chicago

"Previous to the installation of the Dunham Differential Vacuum Heating System, the annual coal consumption for St. Joseph Academy and surrounding buildings totalled 1750 tons per year for heating, hot water, kitchen equipment and laundry. Since the summer of 1938, however, the coal consumption has been reduced to 1600 tons, even though the total radiation has been increased 40 percent by the construction of two new units in connection with Siena Heights College." Such is the written statement of the College given us under date of February 8, 1940.

This is a dramatic but not unusual illustration of the economy possible through Dunham Sub-atmospheric Steam Heating.

To its further credit must be added the freedom from overheating and underheating which is an integral result of this system. For since it exactly and continuously matches heat input to heat loss there can be nothing less than the best of livability and healthful atmosphere in any building that is Comfort Conditioned by Dunham. For information on the possibility of improving your system, write to C. A. Dunham Company, 450 East Ohio St., Chicago.

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Rockefeller Center, New York	St. Elizabeth Academy, Allegany, N. Y.
Home Insurance Office Building, New York	St. Francis Hospital, Olean, N. Y.
Commodore Hotel, New York	Varsity Village, Niagara University, Niagara Falls, N. Y.
Public Library Providence, R. I.	Millard Fillmore Hospital, Buffalo, N. Y.
Grant Building, Pittsburgh	College of St. Theresa, Winona, Minn.
Bausch & Lomb Optical Co., Rochester, N. Y.	St. Mary's Hospital, Rochester, Minn.
Eastman Kodak Company, Rochester, N. Y.	Dierks Building, Kansas City
Lakeside Hospital, Cleveland	Pickwick Hotel, Kansas City
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St. Andrew's Church, Convent and Rectory, Chicago	Utah Valley Hosp., Provo, Utah
St. Giles Church School and Convent, Oak Park, Ill.	Pacific National Bank, San Francisco
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The School Cafeteria

CONDUCTED BY
MARY DeGARMO BRYAN



Food clinic, rather than cafeteria, would best describe the service given handicapped children at Percy Hughes School.

Free Food for Frail Bodies

HELEN TOOKE BUTLER

Dietitian, Percy Hughes School, Syracuse, N. Y.

THERE are probably few vocations more interesting or more exacting than that of feeding handicapped children. Such is our task at the Percy Hughes School, Syracuse, N. Y., where during the last ten years modern equipment and modern methods in the hands of capable specialists have demonstrated the efficiency of scientific rehabilitation of these unfortunate youngsters and have endowed the school with an enviable national reputation.

Many of these children are physically incapable of feeding themselves; others are on strict diets. Many come from homes, impoverished or foreign, where good diet is unknown. The cafeteria—food clinic would better describe it—began as most cafeterias do, charging for the cost of food only, 12 cents per meal from those who could afford to pay. But it was soon found that only a third of the children could or would pay this amount. It is possible that

money sent by parents, in many cases, was short-circuited into some confectioner's pocket but the building up of pitifully wrecked bodies was our imperatively immediate duty so soon we found ourselves providing free meals to all the children.

Today is Monday. Just another day for the teachers but not for us. For today is protein day, the day that comes after Saturday and Sunday when many of the children will have had little to eat or little else but inexpensive starchy foods, such as macaroni or potatoes. So today we shall try to cram proteins and vitamins and minerals into these frail bodies which, thanks to the ravages of paralysis or cardiac diseases, have little use for the excessive amounts of energy foods. If we can get enough of these into them, perhaps we can make up for what they did not get

at home; perhaps we can make their bodies a little stronger or a little straighter.

The buses have just arrived and the influx of pupils has begun. Wheel chairs, crutches, braces, bandaged eyes and the manual gesticulations of the deaf mark the oncoming parade of the lame, the halt and the blind which passes the room where we are checking the grocery order.

The grocery order averages \$70 a week and, owing to the generosity of the Federal Surplus Commodities Bureau, is supplemented by periodic allocations of food that enable us to carry on this work ideally. From this governmental source during the past months we have gauged our allotments of butter, cereal, cornmeal, flour, grapefruit and oranges in tons; cabbages, apples, sweet po-

A MATTER OF MINUTES With COLT AUTOSAN!



C-22 Conveyor Type Colt Autosan efficiently cleans and sterilizes tableware for 2000 persons.



R-1 Rack Type Colt Autosan as major or supplementary unit handles dishes and glasses for 100 to 500 persons.

Precision-built machines give speediest dishwashing for 50 to 2000 people!

CLEANING and sterilizing tableware for 50 or 2000 people is but a matter of minutes in any kitchen equipped with a Colt Autosan. For, these famous machines are *precision-engineered* by Colt to deliver the world's fastest, most efficient dishwashing! Their daily saving of time and labor brings important reductions in the operating costs of any kitchen. If you want Colt Autosan efficiency, economy and speed . . . you can get it *only with* a Colt Autosan.

RUGGED . . . PERMANENT

Into every detail of Colt Autosan construction has been incorporated *extra quality* that insures long, uninterrupted service. Hundreds of these machines serving leading institutions today, were installed 15 to 20 years ago.

FAMOUS AUTOSAN FEATURES

Typical features of Colt Autosans which have given them outstanding preference in schools and hospitals, are: spray tubes both *above* and *below*

the tableware, for most efficient, speedy washing and rinsing; extra-capacity Colt-built pumps with extra-power motors; higher pressure and greater volume of wash solution; and freedom from inside moving parts.

17 DIFFERENT MODELS

For any volume of tableware – from 50 services per meal to 2000 – there is a model that will give you all these unique advantages of Colt Autosan dishwashing. Compact and completely self-contained, they permit efficient dishwashing layouts in minimum space.

Let us show you what Colt Autosans can do for you. Mail the coupon today! Colt's Patent Fire Arms Manufacturing Co., Autosan Machine Division . . . Hartford, Connecticut.

Mail This
Coupon **NOW**

COLT'S PATENT FIRE ARMS MFG. CO.
Autosan Machine Division
Hartford, Conn.

Please send full information on the Colt Autosans that will give me most efficient dishwashing. I serve approximately..... persons per meal.

Name

Address

City State

COLT AUTOSAN
DISH, GLASS AND SILVER WASHING MACHINES

tatoes, peaches, prunes and raisins by the hundredweight, and evaporated milk and peas by the thousand cans. This does not include lesser items, such as 20 crates of eggs or several hundred bushels of tomatoes, which we canned. When the "big truck" comes around each week with our allotment, many of the children watch it unload with big eyes, for to them butter still seems something that "rich people" eat.

Having phoned the order, we next attend to the diet lists that the school doctors have sent in and, like a pharmacist, begin filling their "prescriptions," well aware that our food can do far more to cure these youngsters than anything to be found on the shelves of the apothecary. There are vitamin A, particularly for the sight-

saving cases; vitamin B in plentiful amounts to conserve their appetites and tone up their stomachs; vitamin C; iron (we must keep that hemoglobin level up to ensure some vitality in the crippled), and calcium. So run these diets. Finally, the reducing diets, adjusted to those heavy inactive children in wheel chairs whose only exercise is obtained passively through the ameliorative ministrations of the physiotherapist.

Our studies have shown that at home their meals are slapped on the table or eaten off the stove, so we serve our meals in three or four courses on embossed paper doilies and at attractively set tables.

The first course of soup, cereal or fruit is followed by the main course of protein, starch, two vegetables, at

least a green one or a salad, whole wheat bread and butter and milk. Each child is allowed all he wants of these foods but only one dessert. We insist that each child drink at least one bottle of milk. (The 400 bottles are furnished by the state welfare department.)

On holidays the lunchroom is decorated appropriately and ice cream, chicken, fancy cakes and candy favors are specials. Every day in the center of each table we place a bowl of raw carrot slivers, lettuce or celery, and children who have to be persuaded to eat more elaborate dishes tunnel like rabbits into these vegetables served without dressing or seasoning.

New foods are given in small amounts at first but we are persistent

Food Cost Tables—Staples

GRACE S.
SAUNDERS

The tables giving the costs of preparing vegetables will be resumed when the data on the series are complete.

BAKING POWDER

COSTS, AS PURCHASED

1 lb.....	.15	.175	.20	.25	.275	.30	.32	.34	.35	.36	.38	.40	.42	.44	.46	.48	.50
1 oz.....	.0093	.0109	.0125	.0156	.0171	.0187	.02	.0212	.0218	.0225	.0237	.025	.0262	.0275	.0287	.03	.0312
1 C (6.15 oz).....	.0576	.0673	.0769	.0961	.1057	.1153	.123	.1307	.1346	.1384	.1461	.1538	.1615	.1692	.1769	.1846	.1923
1/2 C.....	.0288	.0337	.0385	.0481	.0529	.0577	.0615	.0654	.0673	.0692	.0731	.0769	.0808	.0846	.0885	.0923	.0962
1/4 C.....	.0144	.0169	.0193	.0241	.0265	.0289	.0308	.0327	.0337	.0346	.0366	.0385	.0404	.0423	.0443	.0462	.0481
1 T.....	.0035	.0041	.0048	.006	.0065	.0071	.0076	.0081	.0083	.0086	.0091	.0096	.01	.0105	.011	.0115	.012
1/2 T.....	.0018	.0021	.0024	.003	.0033	.0036	.0038	.0041	.0042	.0043	.0046	.0048	.005	.0053	.0055	.0058	.006
1 t.....	.0012	.0014	.0016	.002	.0022	.0024	.0025	.0027	.0028	.0029	.003	.0032	.0033	.0035	.0037	.0038	.004

Baking powder is available in No. 10, No. 5, No. 1 and No. 1/2 cans.

BAKING SODA

COSTS, AS PURCHASED

1 lb.....	.02	.03	.04	.05	.055	.06	.065	.07	.075	.08	.085	.09	.095	.10	.105	.11	.12
1 oz.....	.0012	.0018	.0025	.0031	.0034	.0037	.004	.0043	.0046	.005	.0053	.0056	.0059	.0062	.0066	.0068	.0075
1 T.....	.0004	.0007	.001	.0012	.0013	.0014	.0016	.0017	.0018	.002	.0021	.0022	.0023	.0024	.0026	.0027	.003
1 t.....	.0001	.0002	.0003	.0004	.0004	.0005	.0005	.0006	.0006	.0007	.0007	.0007	.0008	.0008	.0009	.0009	.001

Gram Weights: 1 T = 11.28 grams. Baking soda is available in 1 lb. and 1/2 lb. packages.

CREAM OF TARTAR

COSTS, AS PURCHASED

1 lb.....	.24	.25	.26	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37	.38	.39	.40	.42
1 oz.....	.015	.0156	.0162	.0175	.0181	.0187	.0193	.02	.0206	.0212	.0218	.0225	.0231	.0237	.0243	.025	.0262
1 T.....	.0057	.006	.0062	.0067	.0069	.0071	.0074	.0076	.0079	.0081	.0083	.0086	.0088	.0091	.0093	.0096	.01
1/2 T.....	.0029	.003	.0031	.0034	.0035	.0036	.0037	.0038	.004	.0041	.0042	.0043	.0044	.0046	.0047	.0048	.005
1/4 T.....	.0019	.002	.0021	.0022	.0023	.0024	.0025	.0025	.0026	.0027	.0028	.0029	.0029	.003	.0031	.0032	.0033
1/8 T.....	.001	.001	.0011	.0011	.0012	.0012	.0013	.0013	.0013	.0014	.0014	.0015	.0015	.0015	.0016	.0016	.0017
1/16 T.....	.0005	.0005	.0006	.0006	.0006	.0006	.0007	.0007	.0007	.0007	.0008	.0008	.0008	.0008	.0008	.0008	.0009
1/32 T.....	.0003	.0003	.0003	.0003	.0003	.0003	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0005

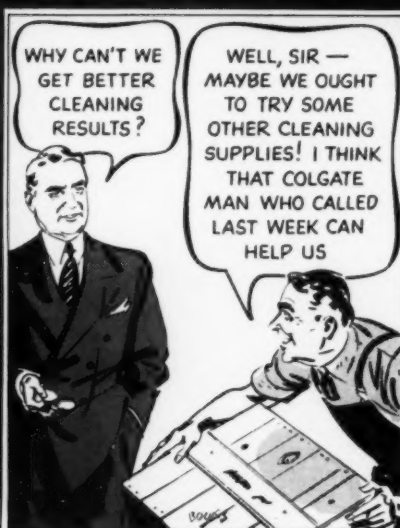
Gram Weights: 1 T = 10.89 grams. Cream of tartar is available in 1 lb., 1/2 lb., 1/4 lb. and 1/8 lb. tins.

These tables furnish a simple method of comparing the cost per serving of foods in various forms. It was not possible to include labor costs involved in preparing some of the foods, hence, the tables should be corrected accordingly. For a more detailed explanation of the tables, see page 76 of the March issue of *The Nation's Schools*.



"WE DISCOVERED THAT CLEAN SCHOOLS INSPIRE CLEANLINESS"

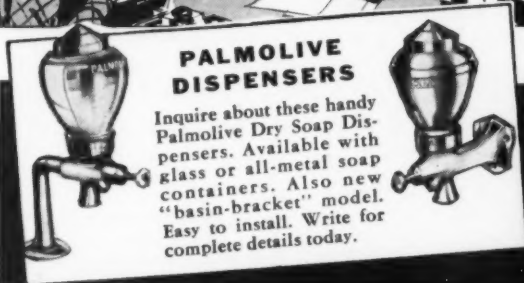
BUT WE HAD TROUBLE MAINTAINING PROPER
STANDARDS OF CLEANLINESS UNTIL...



CALL IN THE C.P.P. MAN BEFORE YOU BUY CLEANING PRODUCTS

COLGATE-PALMOLIVE-PEET can supply you with a complete line of maintenance soaps for your school.

These soaps are guaranteed highest quality, yet cost no more than many ordinary brands. So be sure to call in the C.P.P. man before you buy your next supply of soaps and cleansers.



COLGATE-PALMOLIVE-PEET CO.
INDUSTRIAL DEPT. JERSEY CITY, N. J.

in having each child partake of these foods until they become matter of course, which makes for a well-balanced meal and a happier table companion.

Many of our big family object strenuously to anything new because the various national dishes to which they are accustomed are so different from our nutritious foods. Stubborn Luke threw up his dinner every day for a week because we insisted that he drink milk instead of coffee.

When 11:30 o'clock comes, our first group of 100 children enters

and we stand at the door with eagle eyes awaiting to correct dirty hands. Freddy, problem child No. 3, sneaks in another door and hides under a table with a sling shot waiting to take aim at the children passing.

This part of the family consists of small children of 14 nationalities. Poles and Germans, Italians and Ethiopians sit side by side in a harmony from which European dictators might draw a lesson. Norma, our new little colored girl, persisted in licking her own and her neighbors' dishes clean and much pre-

ferred nature's implements to forks and spoons. But after watching the other children and after a few talks on manners were given to her table, the habit disappeared.

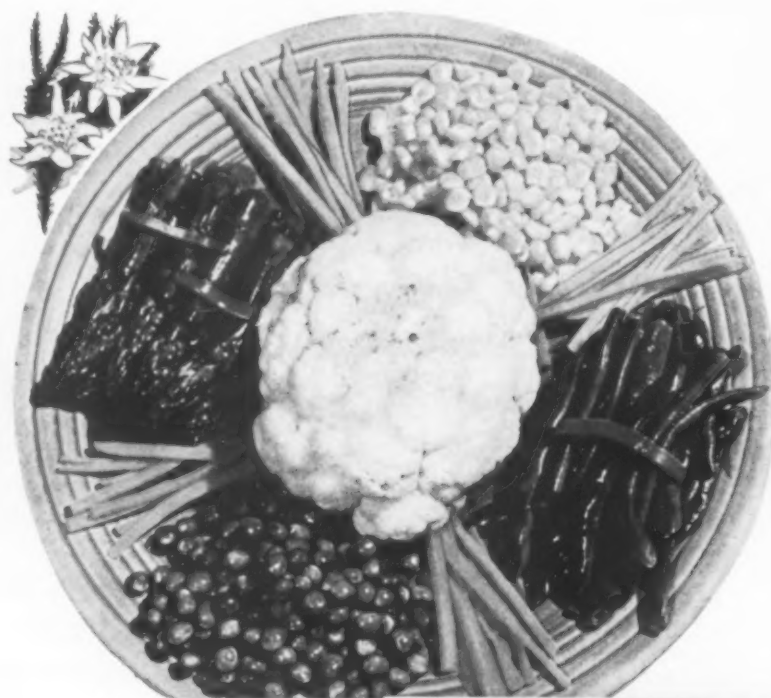
David, a little Greek, swore like a trooper at the other children but after several days of eating alone at a table in the middle of the lunchroom the swearing stopped, at least in the lunchroom. Grabbing of neighbors' food, throwing scraps on the floor and not using the napkins except for ammunition are some of the problems we have to correct for each new group.

Too many of the children are spoiled by their families, who give them undue attention at home because of their handicap, or by too many days in hospitals where kindly nurses and interns baby them too much for their own good. Consequently, they come to us with won'ts and wants not easily compromised.

Our age limit for the school conforms to the state age law but on the doctors' recommendations our group ages range from tiny tots of 3, who are deaf and must be taught early to prevent poor speech habits, to cripples who, because of their long years in hospitals, have lost years of schooling and are now past 20. Our oldest this year is Walter, a young man of 28, who has for the last ten years been flat on his back. Walter is master of ceremonies and leads the rest in the daily salute to the flag.

The 25 adults on our cafeteria staff, who are on the pay rolls of the board of education, W.P.A., N.Y.A. and the city health department, are all trained by the dietitian for two weeks before actually working with us. Their work schedules embrace the preparation of all food, baking all bread stuffs, making white Hoover aprons and red trimmed tea aprons, keeping accounts and records, and laundry work. (We have a washing machine, drier and three irons in the basement.)

After ten years of meeting problems we can testify as to the results achieved by feeding these children free hot meals at noon. Not only does their physical condition improve but they learn more easily in the classroom. Moreover, the table manners they acquire spread over them as a quieting influence toward a more graceful ordering of their disordered lives.



For full vitamin
value . . . serve
Edelweiss

SEXTON

QUALITY FOODS

1881

CHICAGO BROOKLYN

Every vegetable packed under the Edelweiss label is the best that can be chosen from the district where the finest of each variety grows. These tender, crisp, flavorful Blue Lake Beans come from Washington; whole grains of delicious Golden Bantam Corn from the famous Illinois corn fields; giant colored Peas from Minnesota; Mammoth Asparagus from California. Each is picked and packed, often in the space of a half hour, assuring garden-fresh arrival at your table.

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THE *New* VULCAN 50TH ANNIVERSARY STREAMLINE GAS COOKING EQUIPMENT



HANDSOME APPEARANCE—NEW HIGH HEATING EFFICIENCY—PAYS FOR ITSELF IN SAVINGS!

This smart new "streamline" design will completely modernize your kitchen's looks and cooking facilities. Smooth flush fronts and tops eliminate dust and grease catching cracks and corners. Handsome, durable Vulcadur finish cleans easily, stays bright and new looking under the hardest kind of service.

This new Vulcan equipment is backed by 50 years of practical experience building heavy-duty cooking equipment. Automatic controls, complete insulation and improved burner design eliminate losses in fuel, food and labor. The savings they make will soon pay for new equipment in your kitchen.

Send the coupon **now** for full information.

Start saving in your kitchen **today**.

STANDARD GAS EQUIPMENT CORPORATION

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50th Anniversary Gas Cooking Equipment

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New heavy duty top burner with concentrated flame and improved Radial Fin Top — cuts top cooking costs 20% or more

New even-heat top. Aerated burners insure high efficiency. Improved open top and fry top also available

New Expando units increase cooking top area and give greater flexibility at low cost

New improved all-purpose oven

New broilers with improved ceramic burners

New deep fat fryers with faster heat recovery

New high in operating economy

Lessons in Meat Cutting

NEOSHO FREDENBURG

Cafeteria Director, Topeka High School, Topeka, Kan.

AN AGREEMENT among wholesale and retail dealers at Topeka, Kan., did not permit the school cafeteria to buy directly from the packers. All meat was purchased at the retail market. There was no object in buying wholesale cuts as there was no one in the cafeteria who knew how to cut meat and wholesale cuts through the local butcher proved almost as expensive as meat purchased ready for cooking. The need of a trained meat cutter in a department that could stand little raise in salary percentage was responsible for the Topeka night school meat cutting class.

A class of this type presented an opportunity for service not only to the cafeteria but to the public in general at little expense. The night school is partly supported by the state vocational education department. Meat cutting came under the head of homemaking and paid the instructor \$2 an hour. A two hour



A display of the books and pamphlets used in meat cutting class.



Above: Walter Admussen, instructor in charge of Topeka night school meat cutting class, demonstrating the butcher's skill to vocational students.

laboratory class was held in the cafeteria kitchen twice weekly for five weeks. At the conclusion of this series of lectures and demonstrations a second class was organized and continued throughout the remainder of the term.

In compiling material and organizing lesson sheets a rough outline listing three lessons on beef, two on pork and one each on veal, lamb, sausage, internal organs and a final review was followed. Information, instructions and references were added as the class developed. The original plan was to attract housewives and women interested in learning how to buy meat intelligently but on the opening night the class was comprised of a group of men who were either cutting meat in their own shops or employed to handle meat commercially. Several boys from downtown restaurants and even men employed in the packing house on piece work came. This meant changing the course by adding material on the percentage of carcass waste, the judging of quality and the type of carcass to buy; the many tricks of the meat cutters' trade to make profit percentages run higher; removing bone or selling bone in cut; actual weighing, and figuring these percentages.

The classes were extremely interesting. A man who had been with a local market for fifteen years and who held the reputation of being the best retail meat cutter in Topeka was in charge. His pleasing manner and intelligent discussions did much toward assuring their success.

The carcasses were furnished by the cafeteria, the meat used appearing on the menus for the following week. All five cooks in the department served as helpers and from this group one was selected to spend part of his time cutting the meat used in the cafeteria. Much better meat and larger servings are now available to the high school pupil and from their evident enthusiasm those who attended the classes profited.



"I never dreamed the many Ways in which a HOBART FOOD CUTTER

Pays!

You may be "getting along" without a Hobart Food Cutter because you never realized what you could do WITH ONE:

GIVE DAILY MENUS NEW VARIETY AND APPEAL

With the effortless preparation of scores of delicious, appetizing and out-of-the-ordinary Food Specialties.

REDUCE THE COST OF SCHOOL MEALS

With the transformation of inexpensive foods into attractive, appreciated dishes. Save, with the utilization of "ends" and "left-overs."

REDUCE HOURS OF HAND LABOR TO A FEW MINUTES

With the almost miraculous, lightning-like speed of the Food Cutter.

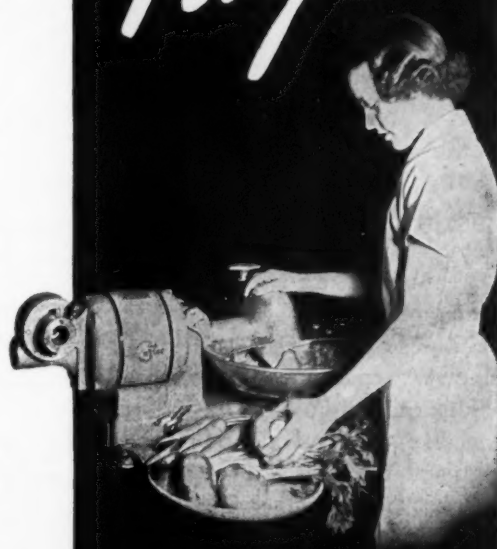
MAKE IT YOUR "MOST WIDELY USEFUL MACHINE"

With Attachments, the Hobart Food Cutter chops meats and foods; slices or shreds vegetables, cheese; prepares Julienne potatoes; grinds coffee and spices; extracts fruit juice . . .

Send coupon now for descriptive Bulletin on Hobart Food Cutters.



MODEL
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BENCH TYPE



Hobart Food Cutter prepares all sorts of foods made up of (or improved by) chopped Fruits (fresh or preserved), Vegetables, Meats, Nuts, Fresh or Stale, Bread, Cakes and Crackers, Even cuts up boiled egg yolks, without mashing—or citron and candied orange peel—uniformly. See it in operation to appreciate its performance! Bench Type and Floor Type Models.

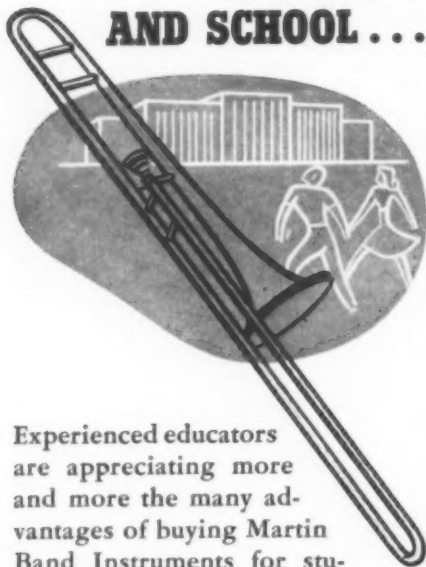
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News in Review

Would Revamp Secondary Schools

Recommendations that may urge important changes in secondary school education to meet more effectively the needs of the average boy or girl in postdepression years are expected to result from a conference of prominent educators called by the American Youth Commission in Washington recently.

The meeting was held as a result of cooperative studies and conferences carried out by the U. S. Office of Education, the N.Y.A., the C.C.C., the U. S. Employment Service and the American Youth Commission. They reveal a widespread need for more realistic training for the vast majority of youth entering the labor market.

Ben G. Graham, superintendent, Pittsburgh, was selected as chairman of the conference, which will prepare a report for the American Youth Commission suggesting possible changes in secondary school programs to bring them more directly in line with present day requirements.

INSTRUCTION

How Times Changel

The following story is credited to Dr. Harry W. Langworthy of Gloversville, N. Y.:

"About 1900 in the University of Iowa a teacher took a hen into the class and, while this was a good deal of an innovation, it was simply a hen. About 1910 this hen had become a 'problem.' About 1915 it had become a 'project.' About 1919 this hen was a 'unit of work.' Around 1925 it was an 'activity.' In 1930 it became the basis of 'an integrated program.' And lo! in 1936 this poor hen had become a 'frame of reference.'"

Elementary School Orchestras

At Knoxville, Tenn., orchestras were introduced last year into a number of the elementary schools (first six grades). The school board pays the instructors but the children must furnish their own instruments and pay 10 cents for each lesson. This money is put into the school orchestra fund, handled by one of the P.T.A. mothers, who serves as treasurer and purchases books and music stands for the orchestras. All the instrumental work is scheduled during school hours. Classes at some schools meet twice a week; at others, five times a week. For junior and senior high school pupils of both races, the board bought \$4500 worth of instruments last year. In the secondary school there are

no fees for lessons. The school board furnishes only the non-solo instruments.

Vocational Day for Seniors

Each April, under the auspices of the Y.M.C.A. men's club and the guidance department of the city schools of Knoxville, Tenn., a vocational day is held for the Knoxville high school seniors. Leading men and women of the city preside over occupational discussions. Among these occupational groups are social service, literary work, law, office work, architecture and designing, engineering and the trades, science and medicine, business and finance, home economics, commercial art, music, nursing and hospitalization.

MEETINGS

American Council on Education

The twenty-third annual meeting of the American Council on Education will convene at the Wardman Park Hotel in Washington, D. C., May 3 and 4.

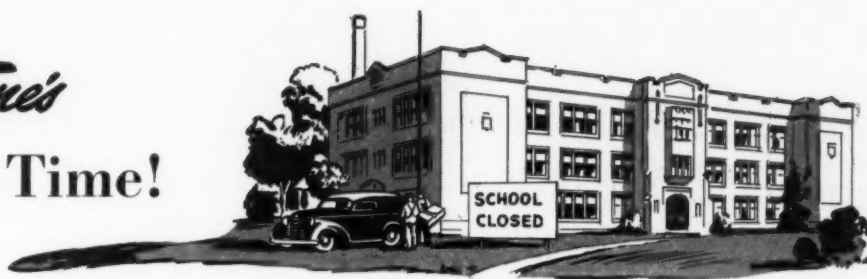
The meeting will open with a business session on the morning of May 3. At the afternoon session there will be a symposium and panel discussion on "The Education and Adjustment of American Youth." Dean William F. Russell of Teachers College, Columbia University, will be the discussion leader and the participants will be the directors of four of the projects of the council: Karl W. Bigelow, Charles F. Hoban Jr., Floyd W. Reeves and Ralph W. Tyler.

At a formal dinner that evening, Council Chairman Mark A. May, director of the Institute of Human Relations, Yale University, will give the chairman's address. This will be followed by an address by President Isaiah Bowman of Johns Hopkins University, "Who Is Responsible for Peace?"

There will be three addresses the following morning: "General Education and the Jesuit Conception of Education" by the Rev. Robert I. Gannon, S.J., president, Fordham University; "How Can the College and the School Cooperate in Educating Teachers?" A. W. Merrill, superintendent of schools, Des Moines, Iowa, and "Ten Years of the Cooperative Test Service," Ben D. Wood, director, Cooperative Test Service.

That afternoon the council will hear Constance Warren, president, Sarah Lawrence College, discuss "The Responsibility of the College to Its Students," and Henry I. Harriman, past chairman of the board, New England Power As-

Summer time's
Sound System Time!



This RCA Victor unit is the one that schools are cheering!



Look at these Valuable Features!

Equipped for schools with 10 to 20 classrooms, easily adapted to schools up to 40 classrooms, plus sound amplification for the school auditorium. Has 12-tube High Fidelity RCA Victor radio, built-in Victrola, complete 2-way communication system. Speech, music, radio and recorded programs may be sent to any room or group of rooms. Beautiful walnut cabinet—only 42 inches long, 18 $\frac{3}{4}$ inches high and 14 $\frac{3}{4}$ inches deep.

Modern schools *stay* modern with RCA radio tubes in their sound equipment. Trade-marks "RCA Victor," "Victrola," Reg. U. S. Pat. Off. by RCA Manufacturing Co., Inc.



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Educational Department, RCA Manufacturing Co., Inc., Camden, N. J.
A Service of the Radio Corporation of America

This summer, while pupils are away, add the countless administrative and educational advantages provided by this sound system to your school! Designed for schools with 10 to 40 classrooms, it is priced well within your means!

NO OTHER TIME of the year is as suitable for school modernization as summer. And no other type of modernization is as well worth your consideration as this RCA School Sound System!

Designed and priced for moderate-sized schools, this unit has features that distinguish much more costly systems. The benefits it provides are numerous. Its educational value alone would make it a highly desirable purchase. Even more important in its value to you is the way it aids in the speedy administration of school affairs.

We are eager to tell you how this RCA School Sound System can be of help to you. Ask us to give you some examples of the way it will lighten your administrative burdens. For a demonstration, additional information and price quotations, send the coupon below.

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Please send me detailed information and price quotations on RCA Victor School Sound System for _____ rooms. Also please send me the new Audio-Visual Catalog.
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CAR-NA-SEAL
WEARS LIKE LEATHER

**SAVES 75% IN TIME & LABOR COSTS
MORE SANITARY . . . NON-SLIPPERY**

"On our gymnasium floor, one application of Car-Na-Seal per year now replaces the 6 or 7 treatments of a well-known wax formerly required," says the Minoa High School, Minoa, N. Y. "Car-Na-Seal is more sanitary, more durable, non-slippery, easier to maintain. We find it saves us at least 75% in time and labor costs." Car-Na-Seal contains 100% bakelite type (phenolic) resins.

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sociation and member of the American Youth Commission, discuss "A Layman Looks at Education."

Consumer Education Conference

A regional conference on consumer education will be held on the campus of George Peabody College for Teachers, Nashville, Tenn., May 17 and 18. This is the first conference of its kind in the southeastern region and a representative gathering of teachers and others interested in consumer education is expected. The conference is being conducted in cooperation with the Institute for Consumer Education at Stephens College.

N.E.A. Announces Program

One of the novel features to be introduced on the program of the seventy-eighth annual convention of the N.E.A. in Milwaukee, June 30 to July 4, is a series of national seminars.

The seminars will meet each afternoon, Monday through Wednesday, reporting their respective findings to the convention at one of the morning assemblies on Thursday. Each seminar is composed of a chairman, five associate chairmen, a coordinator and one representative from each state and territory. These meetings are open to seminar members only.

Topics of the three seminars are: (1) "Protection of School Funds for Educational Purposes," Supt. Ben G. Graham, Pittsburgh, chairman; (2) "Education and Economic Well-Being in Our Democracy," Chancellor Frederick M. Hunter, Oregon State System of Higher Education, chairman; (3) "Building Stronger Professional Organizations," Willie A. Lawson, Arkansas Education Association, chairman.

President Amy H. Hinrichs, in charge of planning the convention sessions, will present a series of contemporaneous morning assemblies on a variety of topics, a practice that already has proved valuable as a means of increasing the number of speakers and the amount of subject matter to be covered.

The convention reaches its widest scope on Wednesday morning when 10 discussion groups will cover topics of vital significance, such as the classroom use of war news, education and juvenile delinquency, Pan American relations in education and safety education.

One of the convention highspots is a session scheduled on political issues of the day. On this program, speakers chosen by the national committees of the Democratic and Republican parties will present the party platforms. The program will be broadcast on one of the radio chains.

The evening programs will be all-convention sessions, one of them devoted to the world scene, another to the national scene.

PUBLICATIONS

Children's Book Week

The fourth annual Children's Spring Book Festival, sponsored by the *New York Herald-Tribune*, will be celebrated the week of May 5 to 12. Each year two prizes of \$250 each are offered by the *Herald-Tribune* for the best books for children published in the spring season, from January 1 to May 1. Prizes are awarded in two classes, books for younger and for older children.

Books for younger children will be judged by Stephen Vincent Benet, Pulitzer prize poet and author; Margaret Ernst, librarian of the City and Country School, and Caroline Emerson of the Spence School.

For older children's books the judges will be Oscar McPherson, librarian of the Lawrenceville, N. J., school; Lena Barksdale, children's bookseller, and Dorothy Canfield Fisher, novelist.

The book festival will be celebrated nationally, with schools, stores and organizations cooperating. Many schools have organized local letter contests to select favorite books. Programs are to be given during the week with lectures, talks by authors and drawing demonstrations by illustrators to stimulate summer reading.

History of Fire Insurance

In response to a demand from teachers and pupils for information on the subject of fire insurance and its history, the Aetna Insurance Company of Hartford, Conn., has prepared a 36 page booklet with illustrations entitled "Fire Insurance Through the Ages." This pamphlet is now available for consultation in many of the leading public libraries and reference rooms.

RADIO

Script Exchange Listings

The Educational Radio Script Exchange of the U. S. Office of Education has recently published its first complete printed list of services. The four major services of the exchange are included: (1) radio scripts, (2) production aids, (3) information and idea exchange and (4) recordings.

Radio Education Institute

A program including Chairman James Lawrence Fly of the Federal Communications Commission, Lyman Bryson and his C.B.S. "People's Platform," George V. Denny Jr., of the Town Meeting of the Air, and Ed Kirby, public relations director, National Association of Broadcasters, has been arranged for the elevation.

(Continued on page 87)



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- Marsh, Smith & Powell of Los Angeles designed and executed the beautiful High School at El Monte, California. A noteworthy example of functional modern design, this 12 building, interconnected unit has commanded nationwide attention. 1,178 Heywood chairs were installed in the auditorium (shown).

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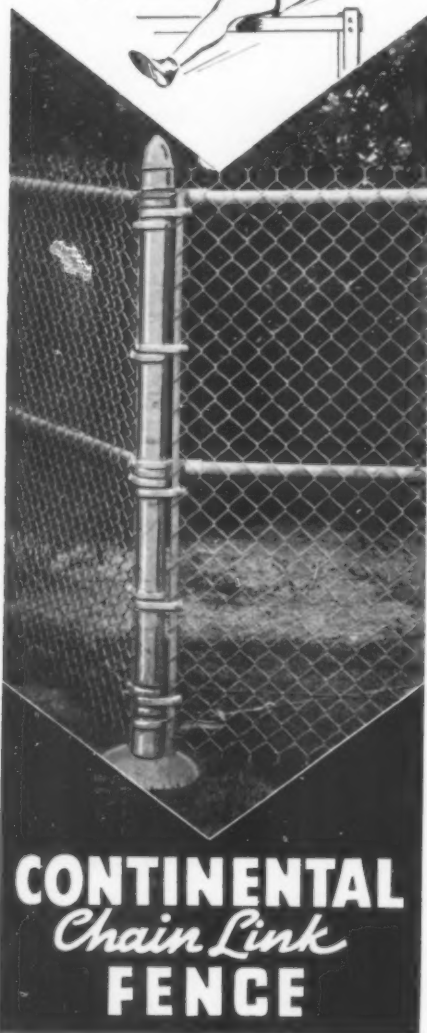
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FENCE

On the Air During May

The following programs of particular interest to school people are arranged by the Columbia Broadcasting System and the National Broadcasting Company. All programs are listed in Eastern Standard Time. Watch listings for your local outlets.

Daily

12:30-1:15 p.m.—National Farm and Home Hour (NBC Blue).¹

Sunday

10:30 a.m.—March of Games, children's quiz game program, produced and directed by Nila Mack (CBS).

11:30 a.m.-11:50 a.m.—Music and American Youth (NBC Red).

12:30-1:00 p.m.—On Your Job, vocational guidance program (NBC Red).

1:00-1:15 p.m.—Pilgrimage in Poetry, broadcasts from homes of famous American poets (NBC Blue).

May 5—Amy Lowell, Brookline, Mass.

May 12—William Cullen Bryant, Roslyn, L. I.

May 19—Emily Dickinson, Amherst, Mass.

May 26—John Howard Payne, Easthampton, L. I.

2:00-3:00 p.m.—Great Plays (NBC Blue).
May 5—Winterset, Anderson.

2:00-2:30 p.m.—Democracy in Action, a series of programs designed to show the people of the United States how their federal government operates. Produced in cooperation with the U. S. Office of Education (CBS).

2:30-3:00 p.m.—University of Chicago Round Table (NBC Red).

3:00 p.m.—New York Philharmonic Symphony, John Barbirolli, conducting (CBS).

4:30-5:00 p.m.—The World Is Yours, auspices of Smithsonian Institution (NBC Red).

Monday

9:15 a.m.—American School of the Air. Frontiers of Democracy, produced in cooperation with the Progressive Education Association (CBS).²

2:00-2:30 p.m.—Adventure in Reading. Dramatizations of books and lives of famous authors, showing background of their works, by Helen Walpole (NBC Blue).

7:15-7:30 p.m.—Youth in the Toils, a dramatic series to illustrate the problem of youth in crime presented by the American Law Institute (NBC Blue).

Tuesday

9:15 a.m.—American School of the Air. Folk Music of America, produced in cooperation with the Archives of American Folk Songs of the Library of Congress, the Music Education Conference and the National Education Association (CBS).²

2:00-2:30 p.m.—Gallant American Women, dramatizations depicting the important part women have played and are playing in the activities of American life; produced in cooperation with the U. S. Office of Education (NBC Blue).

4:15 p.m.—Of Men and Books, reviews of current books and discussions of contemporary authors by Prof. John T. Frederick of Northwestern University (CBS).

9:00 p.m.—Cavalcade of America (NBC Blue).

10:15 p.m.—Americans at Work (CBS).

Wednesday

9:15 a.m.—American School of the Air. New Horizons, a chronological history of the lives of explorers and pioneers (CBS).²

11:15-11:30 p.m.—The Next Step Forward, dramatizations of economic problems based upon findings and recommendations of the Twentieth Century Fund (NBC Red).

2:00-2:15 p.m.—Music for Young Listeners (NBC Blue).

2:15 p.m.—Echoes of History, cooperation of General Federation of Women's Clubs; dramatizations of famous orations of history (NBC Blue).

4:15 p.m.—Highways to Health, medical talks for the layman, arranged by the New York Academy of Medicine (CBS).

10:30-11:00 p.m.—Adventures in Photography, amateur photography program (NBC Blue).

Thursday

9:15 a.m.—American School of the Air. Tales From Far and Near, presenting a selection of children's books of high literary quality (CBS).²

2:00-2:30 p.m.—How Do You Know? Dramatizations based on exhibits at Field Museum of Natural History (NBC Blue).

4:15 p.m.—Adventures in Science. Interviews with prominent scientists by Watson Davis, director, Science Service (CBS).

4:30-4:55 p.m.—Medicine in the News, sponsored by the American Medical Association (NBC Blue).

8:00 p.m.—Musical Americana, with Deems Taylor and Raymond Paige (NBC Blue).

9:00-9:30 p.m.—Rochester Philharmonic Orchestra (NBC Blue).

9:30-10:30 p.m.—America's Town Meeting of the Air, George V. Denny, moderator (NBC Blue).

10:15 p.m.—Columbia Workshop, produced by Douglas Coulter, CBS assistant director of broadcasts (CBS).

Friday

9:15 a.m.—American School of the Air. This Living World, history and current events broadcasts consisting of dramatizations and forums presented at various New York City high schools, with the pupils participating in the actual broadcasting (CBS).²

1:45-2:00 p.m.—General Federation of Women's Clubs, consumers' program (NBC Red).

2:00-3:00 p.m.—NBC Music Appreciation Hour, Dr. Walter Damrosch, conductor and commentator (NBC Blue).³

4:15 p.m.—Men Behind the Stars, legends of the constellations dramatized, Prof. William H. Barton Jr., executive curator, Hayden Planetarium, narrator (CBS).

7:30-8:00 p.m.—Yesterday's Children, series on well-known children's books (NBC Blue).

10:30-10:45 p.m.—Story Behind the Headlines, as told by Cesar Saerchinger. Broadcast in cooperation with the American Historical Association (NBC Red).

Saturday

10:45-11:00 a.m.—The Child Grows Up, talks by Katherine Lenroot, head of Children's Bureau, U. S. Department of Labor (NBC Blue).

12:00 Noon—Milestones in the History of Music, presented by the Eastman School of Music under the direction of Dr. Howard Hanson (NBC Red).

12:00-12:25 p.m.—American Education Forum, current series devoted to outstanding experimental colleges in the field of general education with Dr. Grayson Kefauver of Stanford University (NBC Blue).

12:30-1:00 p.m.—Nila Mack's Let's Pretend, dramatic adaptations of fairy tales and original fantasies by the CBS director of children's programs. Roles enacted by cast of junior stock company of the air (CBS).

5:00-5:15 p.m.—Magic Waves, latest developments in science of radio, discussed by Dr. Orestes H. Caldwell, editor of *Radio Today*, with dramatizations by Gerald Holland (NBC Blue).

5:00-5:30 p.m.—The Human Adventure, dramatization of the progress of university scientific research presented by the University of Chicago (CBS).

7:00 p.m.—People's Platform, round table discussion of social, economic and political problems, Lyman Bryson, chairman (CBS).

7:30-8:00 p.m.—Art for Your Sake, dramatization of the lives and works of great painters by Dr. Bernard Myers, cooperation National Art Society (NBC Red).

10:00-11:30 p.m.—NBC Symphony Orchestra, Arturo Toscanini, conductor (NBC Blue).⁴

¹Except Sunday.

²The American School of the Air program will be heard in the Eastern Standard Time Zone only at 9:15 a.m.; in the Central Standard Time Zone at 2:30 p.m.; in the Mountain Standard Time Zone at 1:30 p.m., and in the Pacific Standard Time Zone at times that can be learned from the various local stations.

³NBC Music Appreciation Hour will be heard in the Chicago area over WCFL on Tuesdays from 2:00 to 3:00 p.m. (C.S.T.).

⁴The NBS Symphony under the direction of Arturo Toscanini will be heard in Chicago from 9:00 to 10:30 p.m. (C.S.T.) over WCFL.

(Continued from page 84)

enth Institute for Education by Radio at Ohio State University, April 29 to May 1.

Announcement of awards for the fourth American Exhibition of Recordings of Educational Radio Programs will be made on the opening day.

Innovations of this year's institute are the clinics on music appreciation and science broadcasts. The demonstration of utilization of a classroom broadcast will be on the secondary level.

SUMMER COURSES

Elementary Conference

The Department of Elementary School Principals of the N.E.A. will hold its fourth annual conference on elementary education at the University of Wisconsin, July 6 to 19.

Besides instructors from the regular staff of the school of education, University of Wisconsin, other well-known educators invited to participate are William S. Gray, William H. Kilpatrick, Willard E. Givens, Kate Wofford, Prudence Cutright, Paul J. Misner and Edwin H. Reeder.

The course carries an upper division number, thus permitting upper division students or graduate students to register for credit. Two college credits are offered.

Each morning from 9 to 10 a.m. there will be a series of general demonstrations conducted by experts. The general assembly, which will be held from 10:15 to 11:45 a.m., is carefully planned to give a well-rounded presentation of some problem of interest to those in the field of elementary education. From 1:15 to 2:45 p.m. there will be seminars on problems relating to the enrichment of the curriculum.

Application blanks and additional information may be obtained from the department of Elementary School Principals, 1201 Sixteenth Street, N.W., Washington, D. C.

School for Custodians

The University of Minnesota again this year will conduct a special five day course for public school building engineers and custodians during its summer session, June 10 to 14.

Housekeeping and sanitation, heating and ventilating and maintenance and management are the three main heads under which instruction will be given this year, according to T. A. H. Teeter, director of the Minnesota summer session.

A complete faculty will include two visiting teachers, K. P. Grabarkiewicz, assistant superintendent of operations at Columbia University, and N. H. McRae, supervisor of buildings and grounds at Macalester College, St. Paul, Minn.

X-rays Reveal Youth Has Fractured Skull

X-ray pictures taken late Tuesday at the Hospital disclosed that a youth, 14, suffered a fractured skull when he fell on the gymnasium floor at the Junior High School Monday morning during basketball practice. The youth remained unconscious and his condition was serious.

Junior High Student Hurt in Gymnasium

A pupil at the Junior High School, was in the Hospital Monday suffering from a possible brain concussion, the result of a fall on the gymnasium floor at the school about 9:30 o'clock Monday morning.

The youth, a son of Mr. and Mrs. [Name], Street, was taken to the hospital in the city ambulance.

Prof. [Name], principal of the school, said that young [Name] was participating in a basketball class and that he slipped and fell while dribbling the ball towards the basket. In falling, the youth struck his head on the floor.

The attending physician said that X-ray pictures would be taken later to determine the exact extent of the injuries.

Prevent Slipping..

Unless your gymnasium floor is treated with a non-slip finish, it is a potential hazard . . . your gymnasium floor (and for that matter all other floors) are so important that it is negligence to use out-of-date, or improper methods of maintenance . . . it is not only negligence but a waste as well . . . a waste of both time and money. When the time comes to check over your buildings, why not call in a Midland Maintenance

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Fill out the coupon appearing directly below this advertisement and mail it to the Midland Maintenance Service Division of the Midland Chemical Laboratories, Inc., Dubuque, Iowa. Your request will receive prompt and individual attention.

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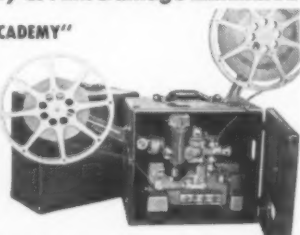
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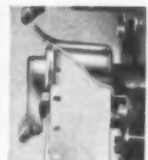
—one of the 16 mm. Filmosound Projectors incorporating the new Safe-lock Sprocket and constant-tension take-up. Remember that all Filmosound and Silent Projectors are precision-built by the makers of Hollywood's professional equipment.



Place film approximately in place on Safe-lock Sprocket.



Flip guard. Film drops, engages with sprocket teeth.



Release guard. Film now cannot jump off sprocket teeth.

● **New Safe-lock Sprocket**—Instead of adding annoying gadgets in an attempt to protect film *after* it has been incorrectly threaded, Bell & Howell engineers have created a device that *prevents* film from being incorrectly threaded! It is the new **SAFE-LOCK SPROCKET**—exceedingly simple—easy to use. To thread, simply place the film *approximately* in place, flip the **SAFE-LOCK** guard, and the film is *automatically, safely, and perfectly* locked on the sprocket. It cannot jump off and tear itself on sprocket teeth.

● **New Take-up**—A new *self-compensating constant-tension take-up* is so designed that regardless of the size of the reel or the amount of film on the reel, film tension is *always* maintained at exactly the proper pull. Thus, the entire film is taken up smoothly and *evenly*.

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Oliver C. Edwards will lecture on mechanical engineering, H. H. Barber on chemicals, Dr. William A. O'Brien on health and sanitation, H. S. Huskinson on painting and H. P. Spottswood on fire prevention. There also will be lectures on psychology and English.

Instruction will be by a method of lecture-conference-demonstration, with each lecture followed by a conference and many visits to actual buildings, most of them chosen from the 115 buildings of the Minneapolis public schools. The registrants will be divided according to special subject interest. The course will be based on subjects found to be most valuable during the twenty years that Minnesota has conducted such instruction.

To Use Workshop Method

During the summer quarter at the University of Chicago the department of education will present five workshops covering all levels of education. Developed several years ago by Dr. Ralph W. Tyler, chairman, the workshop method enables teachers to plan courses and to develop methods of teaching in cooperation with fellow teachers under the guidance of curriculum and examination experts. The workshops will include elementary, secondary and general education along with a workshop on teacher training.

Complementing these, a workshop in the field of home economics will bring the number of workshops during the quarter to six. The home economics workshop and one education workshop will be conducted in Allegan County, Michigan, under joint auspices of the university and the W. K. Kellogg Foundation.

A feature of the summer demonstration schools will be the cooperative formulation of a basic high school course by teachers and pupils and discussion of methods of evaluating teaching.

Workshop on the Arts

The Progressive Education Association will sponsor a workshop on the arts in education at Mills College, Oakland, Calif., as an integral part of the Mills summer session, June 23 to August 3.

Resources include a visiting session of the Chicago School of Design, directed by L. Moholy-Nagy and incorporating the principles of the exiled Bauhaus group of artists who so greatly influenced modern art and architecture; a comprehensive session in the modern dance, with a group of artists, including Louise Kloepper, José Limon and Marian Van Tuyl; a wide program in music; a group work session which stresses theories of play creation and production and dramatics of various kinds; two educational features, a department of child development, which will operate

a children's school for observation purposes, and an education workshop in counseling and guidance.

VISUAL EDUCATION

Movie Appreciation Tested

When young people know what motion pictures are good and what are bad, most of them select the good, Dr. E. W. Jacobsen, superintendent at Oakland, Calif., told the Motion Picture Research Council meeting in San Francisco last month.

The statement was based on the experience in the Oakland public schools in teaching motion picture appreciation for six years. The experiments have demonstrated, he said, that most children like musical comedy best, while crime pictures are low on their list.

Motion picture appreciation in the Oakland schools is begun in the ninth grade. A ten week course, which is part of the English course, is given to Oakland pupils.

It was announced at the meeting that the council has decided to publish a cinema forum which will contain a news digest, original articles, exchange news of film councils and notes on research by other organizations.

School-Made Motion Pictures

If you have produced a motion picture in your school, Hardy R. Finch, Greenwich High School, Greenwich, Conn., would like to have a report about it. Mr. Finch will use the material in a report for the committee on motion pictures and newspapers of the National Council of Teachers of English.

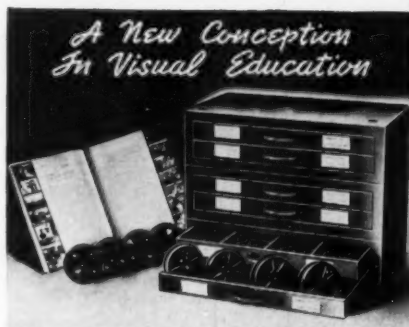
The following information is requested: name of school, address, title and subject of film, date completed, length and feet, size, brief summary of unusual facts about the film and name of person reporting the film.

Film Releases

Six Steps to Safety—A new sound slide film prepared to offer help in the safe transportation of school children, featuring Lowell Thomas as the announcer. This film is based on months of research by safety experts, school board members, teachers and parents. Through dramatic illustrations it emphasizes six important steps that must be taken to protect the lives of more than 3,000,000 children who ride to school in buses: (1) eliminate traffic hazards; (2) train the driver; (3) train the child; (4) use safety patrols; (5) use a good bus, and (6) provide regular bus inspection. Designed purely as

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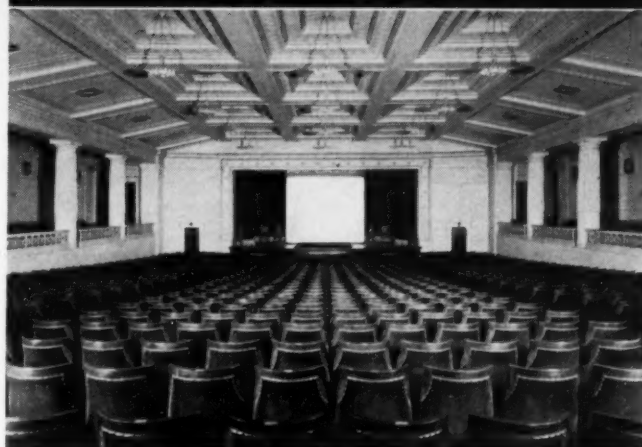
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an educational service, this new safety film contains no advertising or commercial references. Requests for showings should be addressed to the producers, Superior Coach Corporation, Lima, Ohio.

How Birds Feed Their Young—The first Eastman classroom film in full-color kodachrome was photographed by Dr. Arthur A. Allen, professor of ornithology, Cornell University. Some of the commonest birds, indigo bunting, towhee, bluebird, thrush, cedar waxwing, humming bird, heron and quail,

are shown feeding their young in their native environment. ½ reel. For sale. Eastman Kodak Company, Rochester, N. Y.

Mexican Children—Presents in a natural setting the home environment of a Mexican boy and girl, their father and mother, an older brother and a baby sister. For use in grades 1 through 6. Portrays the family's livestock and the children's pets; indicates the nature of the morning chores preparatory to going to school; reveals the school life of the children; describes the food and

eating habits of the family; reproduces and interprets family conversation in Spanish, and depicts the holiday setting of a small town to which the family goes for a fiesta. For further information write, Erpi Classroom Films, Inc., 35-11 Thirty-Fifth Avenue, Long Island City, N. Y.

How to Get a Job—A new series of vocational guidance films that shows steps necessary for high school pupils to obtain a job. The film was prepared by S. D. Benbow, assistant director of vocational guidance, and G. L. Hart, director of visual education, Oakland, Calif. This series of six short length stills includes a number of unique presentations on personal behavior, business manners, appearance and methods of preparation. 35 mm., strip film. Stillfilm Incorporated, 4703 West Pico Boulevard, Los Angeles.

Symphony Series—This series of classical selections is played by the symphony orchestra of the Paris Conservatory of Music, directed by world renowned conductors: "Carnival Romain," directed by Prof. Philippe Gaubert; "Flying Dutchman Overture," directed by Prof. Robert Hager; "Freischutz Overture," directed by Prof. Felix von Weingartner; "Hungarian Rhapsody," directed by Prof. Oscar Fried. 1 reel. 16 mm., sound. For rent. Ideal Pictures Corporation, 28 East Eighth Street, Chicago.

Films in Review

MAN AGAINST MICROBE. 16 and 35 mm. silent and 35 mm. sound. (Silent film seen by reviewing group.) Lent without charge by the Metropolitan Life Insurance Company, Welfare Division, 1 Madison Avenue, New York City, and Y.M.C.A. Motion Picture Bureau, 347 Madison Avenue, New York City.

Rating: age level, valuable at all grade levels; quality of photography, generally satisfactory; selection of scenes, good, except sequences are often short.

Beginning with plague victims of 300 years ago, this film traces the steps by which man has gained his present mastery over disease. The treatment is episodic and presents the historic figures in the struggle: Leouwenhoek and his simple microscope; Plencig, who first contended that disease is caused by germs; Pasteur, who actually showed that germs may cause disease and that they may be destroyed by heat; Lister, with his demonstration that germs can be destroyed by chemical action; Pasteur, with his vaccine treatment; Robert Koch; von Behring and his use of antitoxin on

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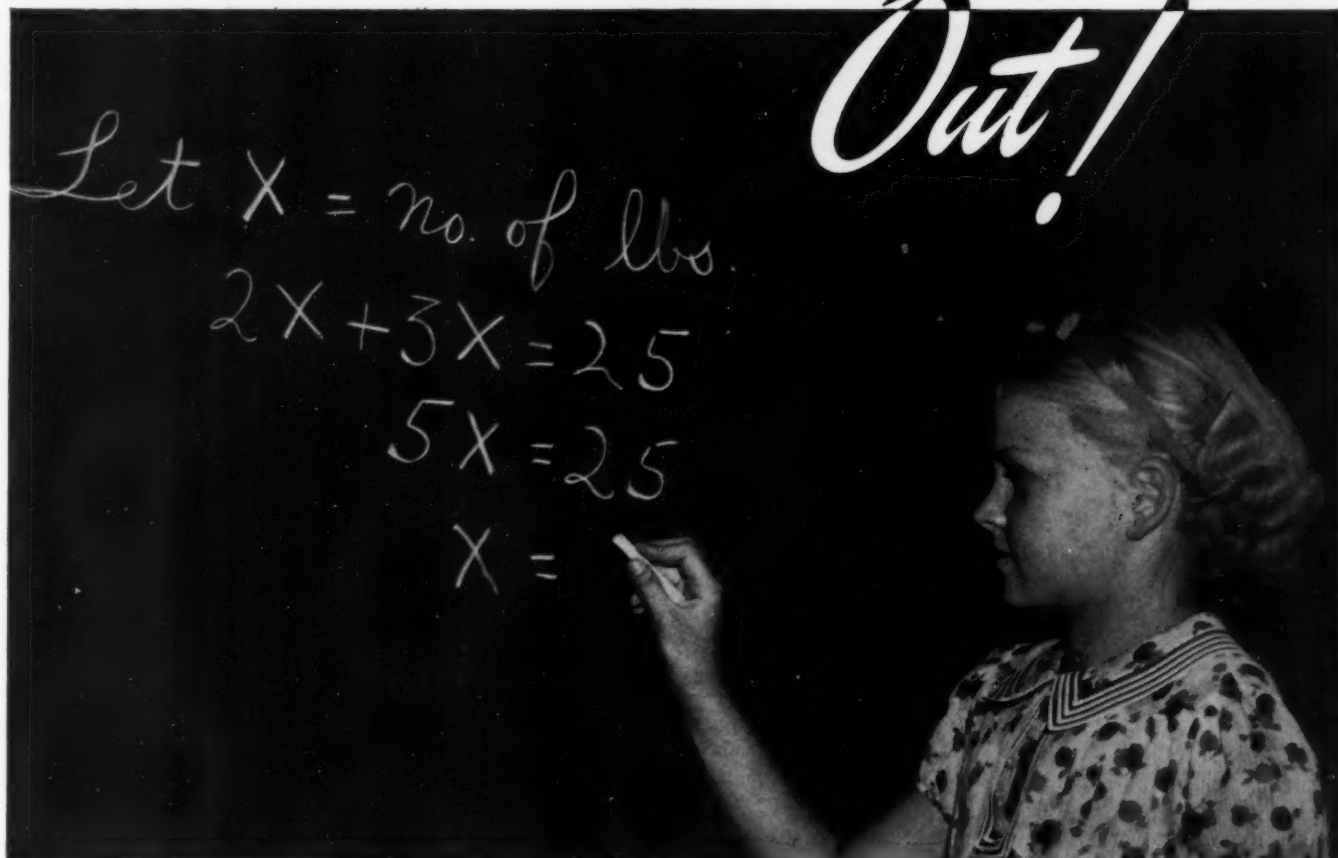
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human patients. Final scenes show modern immunization and point the way for future work.

The material is well organized on the whole and so clearly developed that the film can be used for motivation purposes or for summary or for information in science at a number of levels. Although a commercial film, "Man Against Microbe" is free of advertising and is of an acceptable educational quality. Two minor faults were noticed: (1) the titling tends to be verbose and (2) there is a confusion of protozoa with germs at one point. Perhaps the most severe criticism is that the film somehow fails to create a feeling of excitement and adventure.—Reviewed by a committee comprised of H. EMMETT BROWN, ROSE WYLER, F. T. HOWARD, N. ELDRED BINGHAM and HUBERT M. EVANS, all of Teachers College, Columbia University; ALTON I. LOCKHART of the Horace Mann School, and HENRY ALDERFER of the Dalton School.

WHEN WATER ANIMALS BEGAN TO LIVE ON LAND. 16 mm., sound on film. 1 reel. Distributed by Bell and Howell Company, 1801 Larchmont Avenue, Chicago.

Rating: age level, junior high school through college, particularly good in biology classes studying the development of life; quality of photography, excel-

Coming Meetings

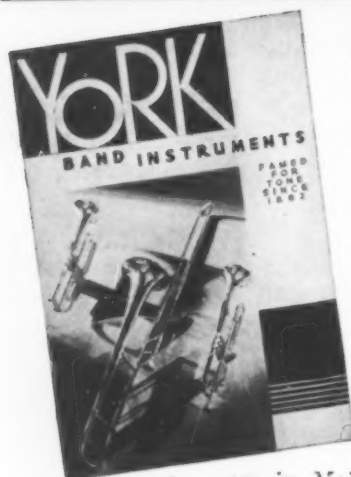
May 3-4—American Council on Education, Washington, D. C.
May 10-18—Eighth American Scientific Congress, Washington, D. C.
May 17-18—Regional Conference on Consumer Education, George Peabody College for Teachers, Nashville, Tenn.
June 3-6—Special Libraries Association, Indianapolis.
June 30-July 4—National Education Association, Milwaukee.
Oct. 9-12—National Council on Schoolhouse Construction, Chicago.
Oct. 10-12—Utah Education Association, Salt Lake City.
Oct. 14-18—National Association of Public School Business Officials, Detroit.
Oct. 17-19—Wyoming Education Association, Casper.
Oct. 20-24—American Dietetic Association, Pennsylvania Hotel, New York City.
Oct. 23-25—North Dakota Education Association, Grand Forks.
Oct. 24-25—Minnesota Education Association, St. Paul.
Oct. 24-26—Colorado Education Association, Denver, Pueblo and Grand Junction.
Oct. 25-26—Maryland State Teachers Association, Baltimore.
Nov. 1-2—Kansas State Teachers Association, Topeka, Salina, Hays, Garden City, Wichita and Parsons.
Nov. 6-9—Missouri State Teachers Association, Kansas City.
Nov. 6-8—West Virginia State Education Association, Huntington.
Nov. 7-8—Arkansas Education Association, Little Rock.
Nov. 7-9—Iowa State Teachers Association, Des Moines.
Nov. 7-9—Arizona Education Association, Tucson.
Nov. 8-11—New Jersey State Teachers Association.
Nov. 15-16—Idaho Education Association, Boise.
Nov. 21-23—Texas State Teachers Association, Fort Worth.
Nov. 24-27—South Dakota Education Association, Aberdeen.
Nov. 25-26—House of Delegates, New York State Teachers Association, Syracuse.

lent; selection of scenes, excellent; spoken commentary, excellent.

Here is the story of the conquest of the land by the animals. To do this, animals had to develop means of adapting themselves to an entirely new set of living conditions. The contacts in environmental conditions are shown and then scenes are shown where an animal has successfully made the adaptation. For instances, dinosaur reptiles are shown in a swampy habitat, then it is illustrated how amphibians, frogs and salamanders have successfully bridged the gap from water to land. The remainder of the movie is given over to excellent illustrations of the way animals have become adapted to living on land. Such adaptations are: the development of legs as a means of locomotion on land, i.e. lizards and alligators; the development of a tough skin against drying, as in alligators; internal fertilization of eggs, illustrated by the skunk which bears its young alive; the protective coloring and protected eyes, illustrated by the chameleon, and the adaptation to obtaining of food on land.

This film is excellently prepared and should prove extremely useful in teaching the way animals have solved many problems in their development over vast periods of time.—Reviewed by the foregoing committee.

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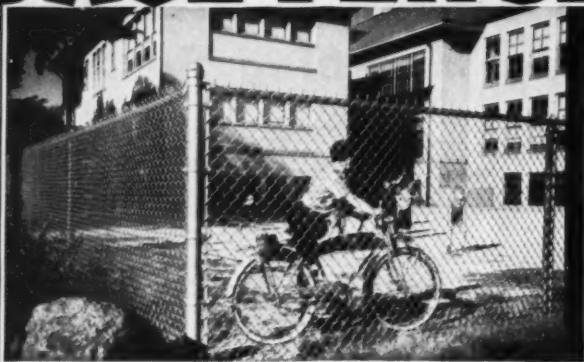
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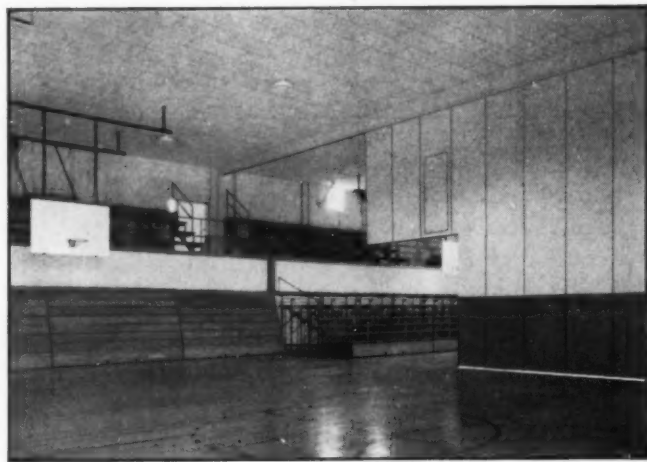
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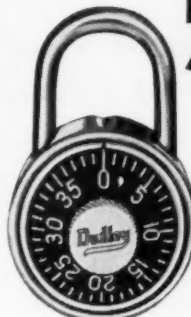
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NAMES IN NEWS

Superintendents

DR. ARVILLE WHEELER recently was elected superintendent of schools at Ashland, Ky. Doctor Wheeler is professor of education at Western State College of Colorado. He will succeed Dr. W. L. BROOKER.

R. H. SORENSON of Cleveland, Minn., has been elected superintendent at Chatfield, Minn.

VARDAMAN FLYNT of Magee, Miss., has been elected superintendent of Randolph Consolidated School, Pontotoc, Miss., for next year, succeeding A. M. BRISCOE.

O. A. MARTINETTI, principal of Chester High School, Chester, Vt., has been elected superintendent of the Central Windham District in Windham County, Vermont. He succeeds GUY W. POWERS, who will become superintendent of grade schools of Brattleboro, Vt.

W. R. GORE has been appointed to succeed PAUL W. NESBIT, who has resigned recently as superintendent at Walsenburg, Colo.

ROY A. NORSTED, principal at Leonidas, Minn., for the last thirteen years, has been elected superintendent at Harmon, Minn.

DR. FRANK SWEENEY is the new superintendent of schools at Newburyport, Mass.

DR. CLARENCE M. DANNELLY has been reappointed to the superintendency of the Montgomery city and county schools, Montgomery, Ala., for another four year term. Doctor Dannelly has been superintendent at Montgomery for the last twenty-five years.

MORTON JOHNSON, principal of Kirkland High School, Kirkland, Wash., has been named to succeed PAUL M. PAIR as superintendent of Kirkland schools. He will take over the job on a two year contract June 30.

WILLIAM H. JOHNSON has been reappointed superintendent of Chicago public schools for another four year term.

Principals

FREDERICK M. RAUBINGER, assistant principal of Glenfield Junior High School, Montclair, N. J., is to become principal of the new Passaic Valley High School, Little Falls, N. J., on July 1.

ABRAHAM COHEN has been named principal of Junior High School 184, Manhattan, succeeding DAVID GOLDWASSER, who has been transferred to the office of Dr. JOHN E. WADE, deputy and associate superintendent of schools, in charge of buildings.

R. C. GUY, principal of the Caldwell High School, Caldwell, Kan., has been elected principal of both junior and senior high schools at Garden City, Kan. J. R. JONES, now senior principal, is the

new superintendent at Garden City, succeeding Dr. IRA O. SCOTT.

DAVID A. PFEIFFER, vice principal of the Sonoma Valley Union High School, Sonoma, Calif., has been appointed acting principal to succeed the late LOUIS GOLTON.

WILLIAM W. PROBERT, principal of Jefferson School, Bergenfield, N. J., has been appointed principal of Bergenfield's new senior high school.

IDRIS K. BOLTZ has been appointed principal of the high school at Fort Collins, Colo., to succeed WALTER S. TATUM.

DONALD DIKE, who has been acting principal of Athol High School, Athol,

Mass., since September 1938, was recently appointed principal of the school.

HAROLD E. DAVEY, principal of Bergen High School, Bergen, N. Y., will become principal of Griffith Institute at Springville, N. Y., in June. Griffith Institute is the name of the public high school at Springville, which has an enrollment of 800 pupils.

A. J. HAGEN, principal at Irving Junior High School, Salt Lake City, Utah, has been appointed principal of West High School, Salt Lake City. He will succeed FRED D. KEELER, who is retiring.

GEORGE S. WHITNEY, for the last eight years vice principal, Antwerp High

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THE COUPON

RIGHT NOW

School, Antwerp, N. Y., has been appointed principal, succeeding HAROLD P. HAYDEN.

DEXTER G. TILROE, principal, Garnerville, N. Y., has been named principal of the Wallkill Central School, Wallkill, N. Y., for the coming year.

VICTOR SALISBURY, principal of the high school at Graysville, Ohio, has been chosen as principal of the high school at Woodsfield, Ohio.

RUSSELL S. READ has been appointed principal of the new junior high school No. 2, Trenton, N. J. KATHRYN A. MITCHELL has been appointed vice principal. Both appointments are effective July 1.

JOHN H. BELL, principal of Pinkerton Academy, Derry, N. H., will be succeeded on June 30 by STANLEY W. WRIGHT, present headmaster of Goffstown High School, Goffstown, N. H.

LEONARD J. MITCHELL was appointed principal of the new junior high school to be housed in the present high school building at Hillside, N. J.

ROSS BERGMAN has assumed the post of principal at West High School, Aurora, Ill.

In the Colleges

PROF. HAROLD S. TUTTLE of the College of the City of New York has been named coordinator of the study of the

influence of junior high school organization and curriculum on attitudes of pupils toward further education and civic duty and on emotional adjustment, which is being sponsored by the Department of Secondary Education of the N.E.A.

DR. EINAR W. JACOBSEN, superintendent of schools, Oakland, Calif., has resigned to become dean of the University of Pittsburgh School of Education. Doctor Jacobsen will be succeeded as superintendent by WILLIAM F. EWING, assistant superintendent since 1927.

FELIX MORLEY, editor of the *Washington Post*, was appointed to the presidency of Haverford College recently. He will assume his new duties next September, succeeding WILLIAM WISTAR COMFORT, who is retiring after twenty-three years as head of Haverford.

DR. ROBERT FRANKLIN POOLE of North Carolina State College has been named president of Clemson College in South Carolina.

DR. JOHN W. GAINES, has announced his resignation as president of Bethel Woman's College, Hopkinsville, Ky., and KENNETH R. PATTERSON of Mayfield, Ky., will succeed him in July. Mr. Patterson has been superintendent at Mayfield for eighteen years.

CHRIS C. ROSSEY of Jersey City, N. J., has been named president of the Jersey

City State Teachers College. DR. ROY L. SHAFFER, whom Mr. Rossey succeeds, has been appointed president of Newark State Teachers College. Mr. Rossey has been dean of instruction at the college for the last three years.

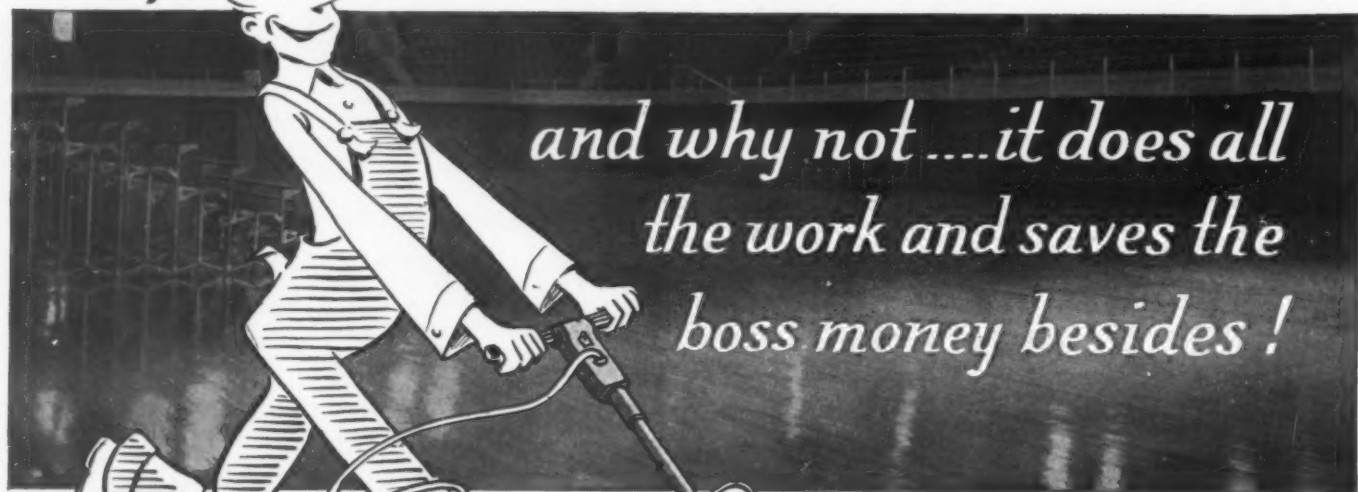
DR. LINCOLN B. HALE becomes acting president of Evansville College, Evansville, Ind., May 1, the date the resignation of PRESIDENT F. MARION SMITH became effective. Doctor Hale has been dean and registrar of the college.

Retirements and Resignations

DR. WALTER E. RUSSELL, WILBERT G. MALLETT and SAN LORENZO MERRIMAN, three veteran Maine normal school principals, will retire from their posts at Gorham, Farmington and Presque Isle, Me., respectively, at the conclusion of the school year in June. LOREY C. DAY, superintendent of schools at South Portland, Me., has been appointed principal of the Farmington State Normal School. Successors to Mr. Mallett and Mr. Merriman have not been appointed.

CHARLES A. WILSON and JOHN CRONIN, principals of the two largest elementary schools in Cincinnati, Avondale and Madisonville, respectively, will retire at the end of the school year. Other principals who are to retire are WILLIAM CHIDLAW, Sayler Park; HENRY HIMMELMANN, Printing Vocational High

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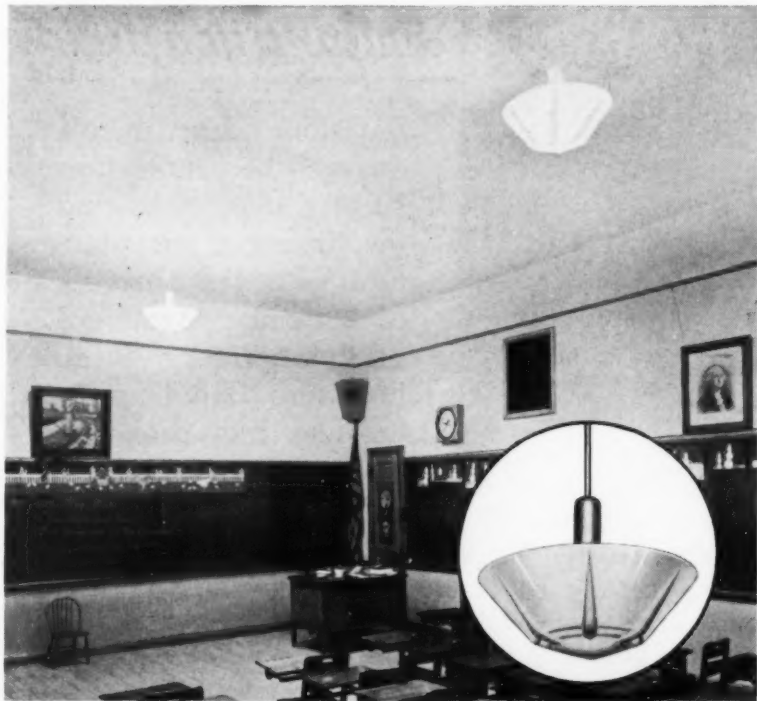


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School, and MARIAN DIERINGER, Sewing Vocational High School. CLIFFORD B. JOHNSON, Sixth District, is an assistant principal who will conclude his teaching career this year.

JAMES P. KING, superintendent of schools and principal of the high school, Maynard, Mass., has resigned both positions. MARY A. DOYLE, who was assistant superintendent, was appointed acting superintendent, and LEO F. MULLIN, submaster, was appointed acting principal of the high school.

DR. CARMON ROSS recently resigned as president of Edinboro State Teachers College, Edinboro, Pa.

J. PIERSON ACKERMAN, principal of Hudson High School, Hudson, N. Y., for the last seventeen years, will be released from service July 1. The office of principal will be abolished and the duties taken over by Supt. JOHN T. KAEMMERLEN. The move was described as "in the interest of economy and greater educational and vocational service" by the board of education.

DR. ISLAY F. McCORMICK, headmaster of Albany Academy, Albany, N. Y., since 1919, has resigned.

THEODORE A. ZORNOW, assistant superintendent of schools, Rochester, N. Y., since 1934, will retire in September. He will be succeeded by DAVID W. DENS-MORE, whose position as principal of Jefferson High School will be filled by ARNOLD B. SWIFT, now principal of School 41.

ROY R. ALLEN has resigned as principal of the Adams High School, Adams, N. Y., a post he has held for ten years.

V. E. BOARDMAN, principal of the senior high school, Eveleth, Minn., has resigned because of ill health, terminating twenty-nine years of continuous service to the Eveleth schools.

ARTHUR O. JONES, principal of Woodward High School, Cincinnati, will retire in May after completion of forty years of service at the school.

THOMAS L. BARNES resigned last week as principal of Lincoln School, East Orange, N. J.

WILLIAM AGAR has resigned as headmaster of Newman School, Lakewood, N. J., effective after the present school year. The appointment of XAVIER PRUM to succeed him in September was made public recently.

Deaths

CLAUDE W. RANDALL, 60, superintendent of schools, Ontario, Calif., was killed in a grade crossing accident recently.

JOHN H. FINLEY, 69, superintendent of schools, Paulding County, Ohio, for the last six years, died recently following a month's illness.

M. CLYDE BLACK, 43, principal of Pennville High School, Pennville, Ind., died recently of streptococcic meningitis.

ELIZA MILLS BEARD, co-founder of Miss Beard's School, Orange, N. J., a day and boarding school for young women, died recently. Miss Beard, with her sister, LUCY C. BEARD, founded the school in 1891 as a small kindergarten.

SISTER LEILA MARY, S.M.V., founder of St. Mary's School for Girls, Germantown, Pa., died recently at the school. SISTER BERTHA, associated with the school for more than twenty years, died recently also. Their respective ages were 73 and 77 years.

LOUIS H. GOLTON, for twenty-two years principal of the Sonoma Valley Union High School, Sonoma, Calif., died recently of a heart attack.

SISTER MARY ALBERTA, who for the last four years has had charge of St. Augustine's School, Ossining, N. Y., died recently following two days of illness.

Miscellaneous

WALTER F. EBERLE, who served as chairman of the Cincinnati Citizens' Committee that successfully campaigned last fall for the three year renewal of that city's public school tax levy, was recently elected to the presidency of the Cincinnati Chamber of Commerce.

DILLARD BROWN LASSETER of Atlanta, Ga., has been appointed deputy administrator of the N. Y. A.



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THE BOOKSHELF

EARTH'S GREEN MANTLE. *Plant Science for the General Reader.* By Sydney Mangham. New York: The Macmillan Company, 1939. Pp. 322. \$3.50.

This popular but scientific treatment of green life upon the earth should certainly stimulate the study of botany. Interest range: later adolescent and adult.

POST-PRIMARY EDUCATION IN THE PRIMARY SCHOOLS OF SCOTLAND 1872-1936. By Newman A. Wade. London, England: University of London Press, 1939. Pp. xvi+275.

Well-documented history of post-primary (early secondary in the United States) education in Scottish schools, divided into four significant periods of development.

EDUCATIONAL MEASUREMENTS IN THE ELEMENTARY SCHOOL. By M. E. Broom. New York: McGraw-Hill Book Company, Inc., 1939. Pp. x+345. \$3.

Discussion of testing procedure as an appraisal and diagnostic device in elementary education. A large area of

modern development in this field has been omitted, which certainly decreases its scientific value.

THE PUBLIC JUNIOR COLLEGE CURRICULUM. An Analysis. By Clyde C. Colvert. University, La.: Louisiana State University Press, 1939. Pp. xxi+177. \$2.25 (Cloth); \$1.75 (Paper).

Timely compilation of curricular practices in junior colleges.

SPELLING AS A SECONDARY LEARNING. By I. Keith Tyler. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. ix+116. \$1.60.

Report of a research in secondary learning—spelling in this instance. Evidence appears to be in favor of incidental teaching and away from conventional textbook teaching.

DANIEL BOONE. By John Bakeless. New York: William Morrow and Company, 1939. Pp. 480. Illustrated. \$3.50.

First complete, authentic and carefully documented story of Daniel Boone, fighting Quaker, trapper, In-

dian fighter and diplomat, explorer and pioneer. Out of the maze of legend surrounding this shadowy figure has been drawn a vivid picture of a strong man.

THE LIBRARY IN THE SCHOOL. By Lucile F. Fargo. Chicago: American Library Association, 1939. Pp. xvi+552. \$3.50.

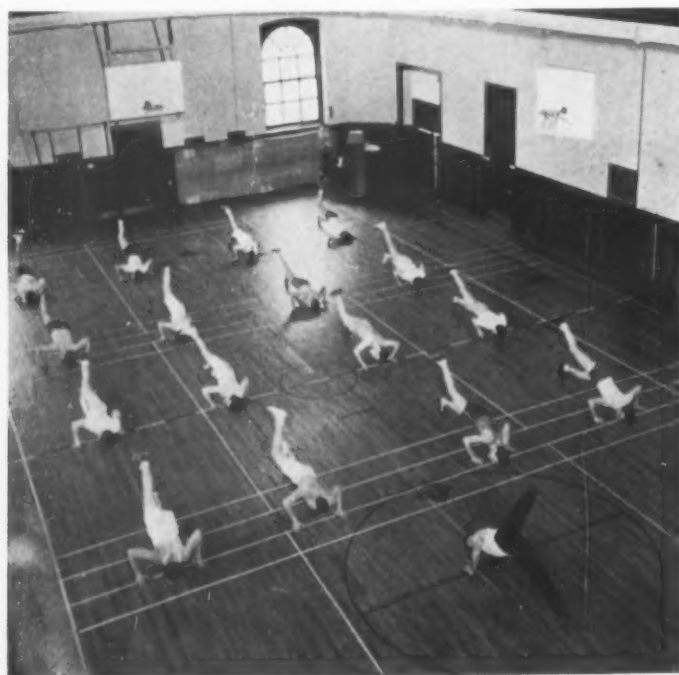
Third and revised edition of the relation of the library to the school and to larger community problems. Contains much worth-while and practical information.

THE ADMINISTRATIVE CODE AND THE RULES AND REGULATIONS OF THE LONG BEACH CITY SCHOOLS. Long Beach, Calif.: Board of Education, 1939. Kenneth E. Oberholtzer, Superintendent. Pp. 56. (Paper Cover).

Revised administrative code that is recommended for reading by school superintendents generally.

VOTING BEHAVIOR: A CASE STUDY. By James Kerr Pollock. Ann Arbor, Mich.: Bureau of Government, University of Michigan, 1939. Pp. 40. (Paper Cover).

The author concludes that "these figures should make clear the inadequate and unsatisfactory job which is done by our school system in developing in students a strong citizenship interest. Even if young people cannot



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be completely trained for citizenship responsibilities, at least they should as a result of their schooling have developed an interest which would cause them to become regular voters."

THE BAND'S MUSIC. By Richard Franko Goldman. New York: Pitman Publishing Corporation, 1938. Pp. xviii + 442. \$3.

The evolution of the band with specific reference to different types of program materials available for this form of musical organization. Invaluable aid to directors of school bands.

DEMOCRATIC PRACTICES IN SCHOOL ADMINISTRATION. Compiled and Edited by William C. Reavis. Chicago: University of Chicago Press, 1939. Pp. ix + 214. \$2 (Paper Cover).

Collection of writings by educators and educationists dealing with the possibility, desirability and methods of developing democracy in administration.

PRINCIPLES OF UNIT CONSTRUCTION. By Arthur J. Jones, E. D. Grizzell and Wren J. Grinstead. New York: McGraw-Hill Book Company, 1939. Pp. x + 232. \$2.

An approach to the problem of developing instructional units based upon the implications of Gestalt psychology, with the primary emphasis upon learning that integrates the specific learn-

ings toward the goal of complete learning.

CONSTRUCTIONAL ACTIVITIES OF ADULT MALES. By W. Virgil Nestrick. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. vi + 128. \$1.60.

Analysis of hobby interests that should be of value to the student of adult education.

THE AMERICAN CANON. By Daniel L. Marsh. New York: The Abingdon Press, 1939. Pp. 126. \$1.

The president of Boston University presents seven significant items in the history of American documents as a basis for American policy. Collateral reading in secondary school social studies.

MAN OF GLORY, SIMON BOLIVAR. By Thomas Rourke. New York: William Morrow & Company, 1939. Pp. 385. Eight Photographic Illustrations. \$3.50.

The great liberator—still a most vital force in Latin America, where he is almost a cult—is portrayed sympathetically but objectively by a capable author. It's a fascinating book, one that is hard to stop reading. Through its reading a better understanding of the countries to the south of us may be established, something highly desirable in light of current trends.

TAKING THE STAGE. Self-Development Through Dramatic Art. By Charlotte Crocker, Victor A. Fields and Will Broomall. New York: Pitman Publishing Company, 1939. Pp. viii + 339. \$2.50.

Technics vital to acting are presented effectively in this closely written volume. Range of interest from secondary school through college and adult community dramatic activity. Valuable as reference guide.

SUYE MURA: A JAPANESE VILLAGE. By John F. Embree. Chicago: University of Chicago Press, 1939. Pp. 329. Illustrated. \$3.

Folk life in Japan, presented through a comprehensive social study of a Japanese village which gives an insight into the religious, social and economic life of the Japanese peasant. Decidedly interesting as well as informational for the student of sociology.

LEIF ERIKSON, THE LUCKY. By Frederick Arnold Kummer. Philadelphia: The John C. Winston Company, 1939. Pp. 245. Illustrated. \$2.

Fragmentary information concerning this great explorer and navigator has been brought together in an unusually fascinating manner that will appeal to the adult who likes to read of great adventure as well as to youths for whom it was primarily written.

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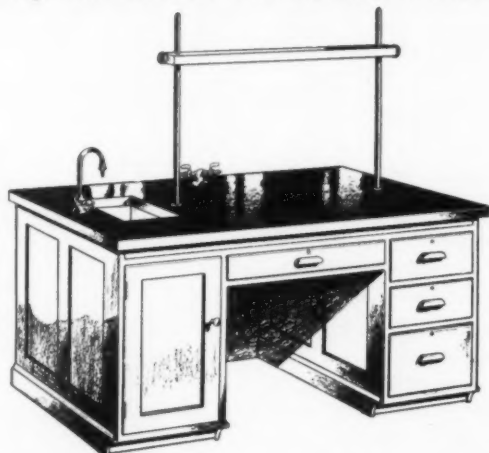
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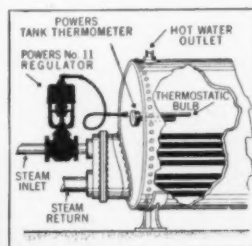
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New Catalogs

New catalogs are now available from the following companies: Spencer Lens Company, Buffalo, N. Y., brochure on Spencer Teaching Aids; Tile-Tex Company, Chicago Heights, Ill., brochures on the uses of Tile-Tex products; Bausch & Lomb Optical Company, Rochester, N. Y., catalog E-20 on micro-projectors and catalog I-15 on magnifiers and read-

ers; Eastman Kodak Company, Rochester, N. Y., "Visual Teaching With Kodaslide"; American Crayon Company, Sandusky, Ohio, a new stencil book by Emmy Zweybruck; RCA Manufacturing Company, Camden, N. J., 1940 edition of "Audio-Visual Service for Schools"; Edwin F. Guth Company, 2615 Washington Boulevard, St. Louis, new No. 36 fluorescent lighting catalog; Scott Paper Company, Chester, Pa., a new booklet, "Scientific Washroom Service"; Detroit Stoker Company, General Motors Building, Detroit, a new 24 page catalog describing the Detroit UniStoker; Ampro Corporation, 2839 North Western Avenue, Chicago, 1940 catalog of Ampro silent and sound equipment.

Atlas Press Company, Kalamazoo, Mich., is offering blueprint charts for industrial arts department bulletin boards. These wall charts present elementary principles governing the correct grinding of lathe tools.

George McArthur & Sons, Baraboo, Wis., is offering a plan book for school towel departments. This book figures school towel and laundry costs and there are enclosed samples of toweling.

"Operating Record for Motor Trucks and Passenger Buses," a book published by the Dodge division of the Chrysler Corporation, containing double spread ruled pages for each month of the year, allows bus operators to set down daily expenditures of gasoline, oil, repair and maintenance costs, as well as hours of operation, mileage and stops. Distributed free of charge, the book can be obtained from any Dodge dealer or by addressing a request to the advertising department of Dodge division, Chrysler Corporation, Detroit.

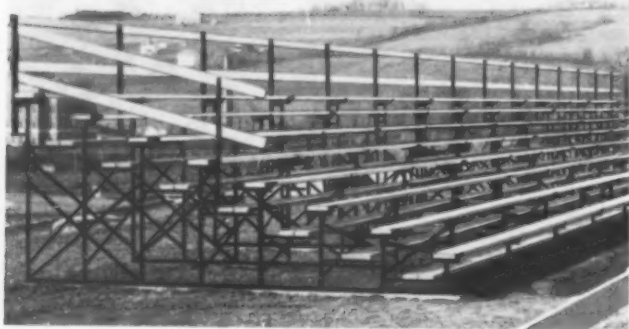
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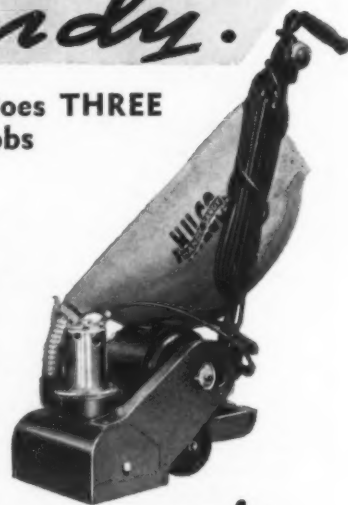
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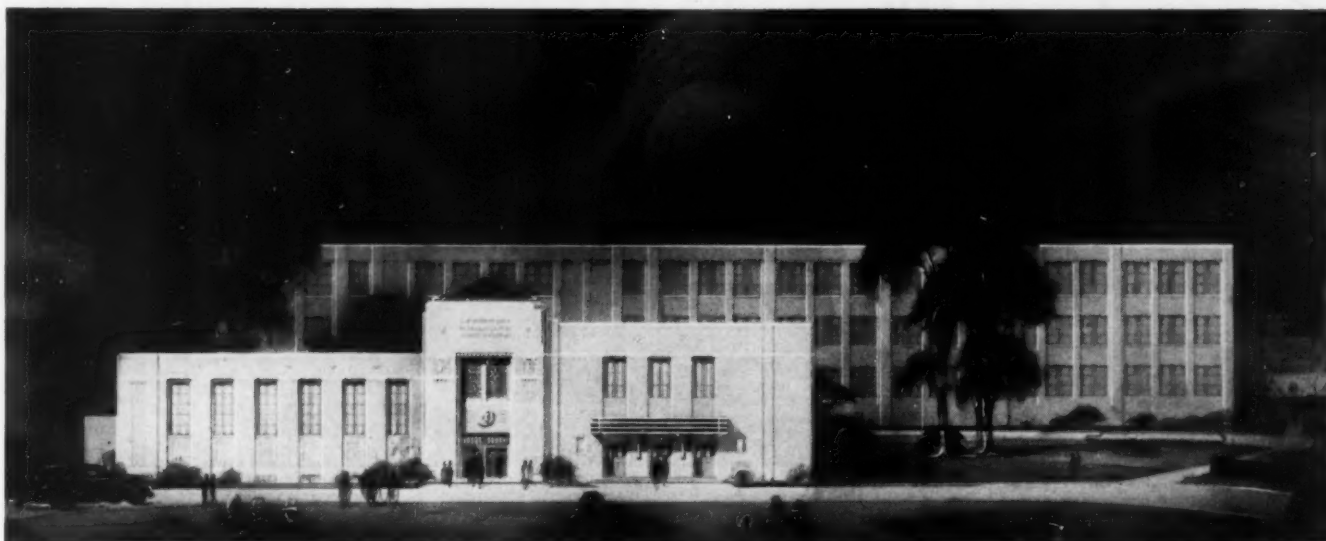
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CONTENTS

For June, 1940

Looking Forward	17
Community School Leadership in the South, M. G. Fraser and Sadie Goggans	20
Capitalizing Upon Teachers' Out-of-School Interests, Deta P. Neeley	24
Movies at Commencement	26
They Call It "Parents' Night," T. S. Klein	27
School at Wauwatosa, R. F. Clas	28
Learning to Live in the World of Books, Leo B. Baisden and Jewel Gardiner	30
Outwitting "Scalpers"	32
This Plan Is Far Subtler, J. Ray Stine	49
Making the Most of Noon Hour, Robert Bates	50
St. Louis Names a Superintendent, Willis H. Reals	51
Providence Presents New Senior High, Joseph H. Stannard	52
Salaries of School Physicians, Earl E. Kleinschmidt, M.D.	57
Guidance in a Small School, Edmond J. Vachon	58
Guidance on a County-Wide Scale, Julian C. Aldrich	60
Why Not Display Your Wares? Lawrence A. Barrett	62
Keep Your Nonpartisan Boards, W. Lloyd Sprouse	64
Choosing a Public School, M. M. Chambers	68
Cutout Figures Halt Traffic	70

Portfolio of Heating and Ventilating

The Art of Heating and Ventilating, Hans W. Schmidt	34
Plant Must Meet All Needs, F. W. Frostic	36
For the Sake of Economy, G. L. Larson	38
Firing Technics, C. H. Pesterfield	40
The Question of Heating Costs, Samuel R. Lewis	42
Safety in the Boiler Room, Francis R. Scherer	44
Locating the Boiler Plant, Edward W. Thode	45
Temperature Control, Ira H. Davey	46
Wausau Saves \$11,758, Frank Kluever	47
How Chinook Solved Its Problem, Fred A. Brinkman and W. L. Conway	48

The School Cafeteria

Safeguards in Diet	72
Food Cost Tables—Dairy Products, Grace S. Saunders	74
Cafeterias in Cleveland, Helen Hobson	76
Quantity Food Service Recipes, Reviewed by S. Margaret Gillam	78
Food for Thought	78

Better Plant Practices	6	Films in Review	89
Index of Advertisers	15	Names in the News	90
Chalk Dust	56	Coming Meetings	92
As Others Say It	66	On the Air During June	96
News in Review	80	The Bookshelf	98
Film Releases	86	Trade News	102

Side Glances—

CONTRASTS are often sharpest among schools in respect to their science teaching and their science laboratories. In the belief that many schools need help in developing science courses and in laying out and equipping laboratories, The NATION'S SCHOOLS has chosen this department as the theme of its July portfolio.

IS THE county superintendent a public officer or merely a public employee? M. M. Chambers, authority on school law, has chosen to discuss the status of this office as the July contribution to his monthly series. Court decisions, to be cited by Mr. Chambers, appear to leave the way open for modernization of the qualifications for the office.

SUPT. Harold L. Greear of Sargent Consolidated School, Rio Grande County, Colorado, has prepared for July publication a comprehensive view of the school nurse's job in the small school and community.

IT IS easier for Mr. Average Citizen to understand the versatility of North High's quarterback than it is for him to comprehend the educational value of modernized school equipment. But he will understand when administrators use effective technics in interpreting the worth of these changes in the school plant. Next month Steward Harral, University of Oklahoma, will suggest ways to develop community enthusiasm for new equipment.

Published monthly by The Nation's Schools Publishing Co., Inc., 919 North Michigan, Chicago, and 101 Park Avenue, New York. Otho F. Ball, president; Raymond P. Sloan, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. Yearly subscription, United States and Canada, \$2; foreign, \$3. Current copies, 25c each. Member Audit Bureau of Circulations. Copyright, 1940, by The Nation's Schools Publishing Co., Inc. Entered as second-class matter Jan. 16, 1928, at the Post Office at Chicago, Ill., under the Act of March 3, 1879.

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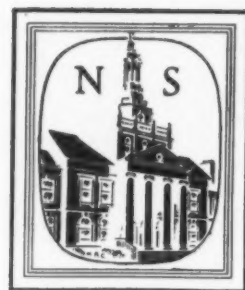
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Glasses for a Graduation Present?

A large proportion of the pupils who will graduate from high school this month have defective vision. Yet when the class of 1940 entered elementary schools relatively few of them exhibited eye defects.*

What happened to these young eyes in the interval between kindergarten and college? The answer in large part is use and abuse of eyes in critical visual tasks.

Science is now working to decrease these percentages. Schools last year paid millions of dollars extra for text books of sight-saving visibility.

But—make this check in your own schools.

Are eyes abused by reading *duplicated* materials so low in visibility as to be reading hazards? Or is eyesight protected with duplicated copies of visibility comparable to standard texts—produced on the new Mimeograph duplicators?

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*An authoritative survey shows that 24% of high school pupils are near-sighted, yet only 7% of pre-school children have this eye defect.



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BETTER PLANT PRACTICES



Last Word on Safety

As a last word of warning, children in the public schools of Sioux City, Iowa, are urged each year just before vacation to observe every precaution during their vacation play. This year, for example, Supt. L. W. Feik advised the teaching personnel that the matter of safety should be a topic for classroom and assembly discussion once at least before the close of school.

"During summer vacation," he explained, "children living near railroads are sometimes inclined to play on railroad property. It will be well for principals and teachers in all of our schools—senior high, junior high and elementary—to emphasize to all pupils the fact that deaths and injuries result from playing on railroad tracks and flipping trains. Discussion should include not only dangers incurred playing on railroad property but also the reasons for exercising safety precautions while swimming, crossing streets and playing."

Cleaning Blackboards

Many custodians agree with the rules established by the board of public education, Wilmington, Del., regarding cleaning blackboards. Briefly, they are as follows:

"A pail of warm water with a small amount of kerosene and wood alcohol, to counteract the grease, and a sponge are used. Plain kerosene rots the slate.

"First, clean a space along all four sides of the frame of the blackboard. Be careful that no water runs down on the chalk trays or on the wall. Clean the rest of the board by an up-and-down or back-and-forth motion. Do not use a circular motion. Rinse with clean water."

If this method does not work, here is another that some believe to be more rapid and more effective. Incidentally, don't make the mistake of using soap.

"Use a heavy bath towel dipped in clear water, wrung dry for washing and

wrung very dry for drying. Fold or roll the towel and use it with both hands placed flat against the blackboard one above the other. Avoid dripping and splashing on the wood work."

The Right Stroke

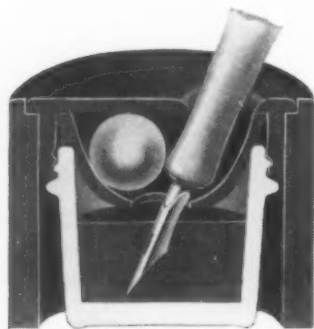
What stroke is most effective in sweeping with a floor sweep? The board of public education, Wilmington, Del., is in favor of a push stroke at all times. "In sweeping under the desks," according to its manual for custodians, "the custodian should sweep down one side only. He should not be between the handle of the brush and the row of seats. Dust should not be swept up one aisle and down the next.

"The custodian should always progress forward while sweeping, except on the stairs. Make all strokes alike and in the same general direction as far as possible, so that the relative position of the janitor's body does not change continually. Time studies have shown that the push-

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FREQUENTLY, problems in proper school maintenance cleaning arise to trouble those in charge. The Wyandotte Service Representatives are in daily touch with almost every kind of cleaning; their problem is the same as yours — to achieve the most efficient

cleaning methods and materials at the lowest cost consistent with satisfactory results, therefore *your* Wyandotte Service Representative can help to solve *your* cleaning problems. Phone or write for him to call. There is absolutely no obligation to buy.

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ing method of sweeping can produce just as good a job in a shorter period of time than other methods used.

"Sweep lengthwise on the stairs rather than make a number of strokes across each stair."

Treating Windows Right

There is a right and wrong way to clean windows as there is to do everything else. In Wilmington, Del., the procedure set up for school custodians is as follows:

"Wipe off the dust from the windows, wash them with warm water and dry them with a squeegee, dry rag or chamois. If the squeegee is used, care must be taken that water does not run onto the window sills and leave streaks or stains on the wood or bricks. If ammonia is used, great care must be taken that it does not spill and blacken the woodwork. Wipe off any water that may get on woodwork.

"Another method recommended is the use of water, either clear or with the addition of a little kerosene and wood alcohol ($\frac{2}{3}$ wood alcohol and $\frac{1}{3}$ kerosene). Heat the liquid to a temperature of 95° F. to combine the ingredients properly and to render them odorless and free from grease. This is a superior cleaning agent. Wash windows with a

cloth or chamois and dry with chamois. A cloth used as a drying agent will not accomplish as good results as a chamois and requires more time. Inside panes and all interior glass can be washed in the same way. Use a combination squeegee and cleaner with a reservoir, wash windows, dry with squeegee and wipe off any water that may get in and on the woodwork.

"The outside of windows should be washed at least three times a year during vacation periods. The inside panes should be washed at least once each month. Whenever possible, inside panes may be washed during school hours. Classroom windows should be washed on Saturday, at the noon hour or after school."

Sand v. Smooth Finish

Should school walls have sand finish or smooth plaster? The answer is found in the practical experience of various custodians throughout the country.

The consensus is that it is practically impossible to wash sand-finished walls, to say nothing of painting them. Therefore, smooth finished plaster provides many more possibilities for future treatment than sand-finished walls. This factor is important owing to the trend in some localities to treat the walls with

such coverings as linoleum, oil cloth or pressed wood on canvas. One school recently visited had its auditorium covered with sliced mahogany on canvas. Such wall coverings are more easily applied on a smooth finish than on a sand finish.

Enid Plays Safe

What looks like an effective safety inspection plan has lately been introduced in the school system of Enid, Okla. Every school building in the city receives rigid inspection regularly each month from basement to roof, inside and out: boilers, flues, gas lines, sanitary facilities, schoolrooms and halls—nothing is overlooked. Forty-three different items must be checked on the monthly score sheet. Five of these concern fire hazards.

Visit Enid while these inspections are taking place and you will find the clerk of the school board, the superintendent of buildings and grounds, the principal of the school that is being inspected and a custodian from some other school all busily engaged. Each item is graded with a possible score of 100 and an "A" rating, good for one month only, is awarded to those schools having a score of 90 or more. Incidentally, during a recent month 14 of the 15 schools received the high rating.



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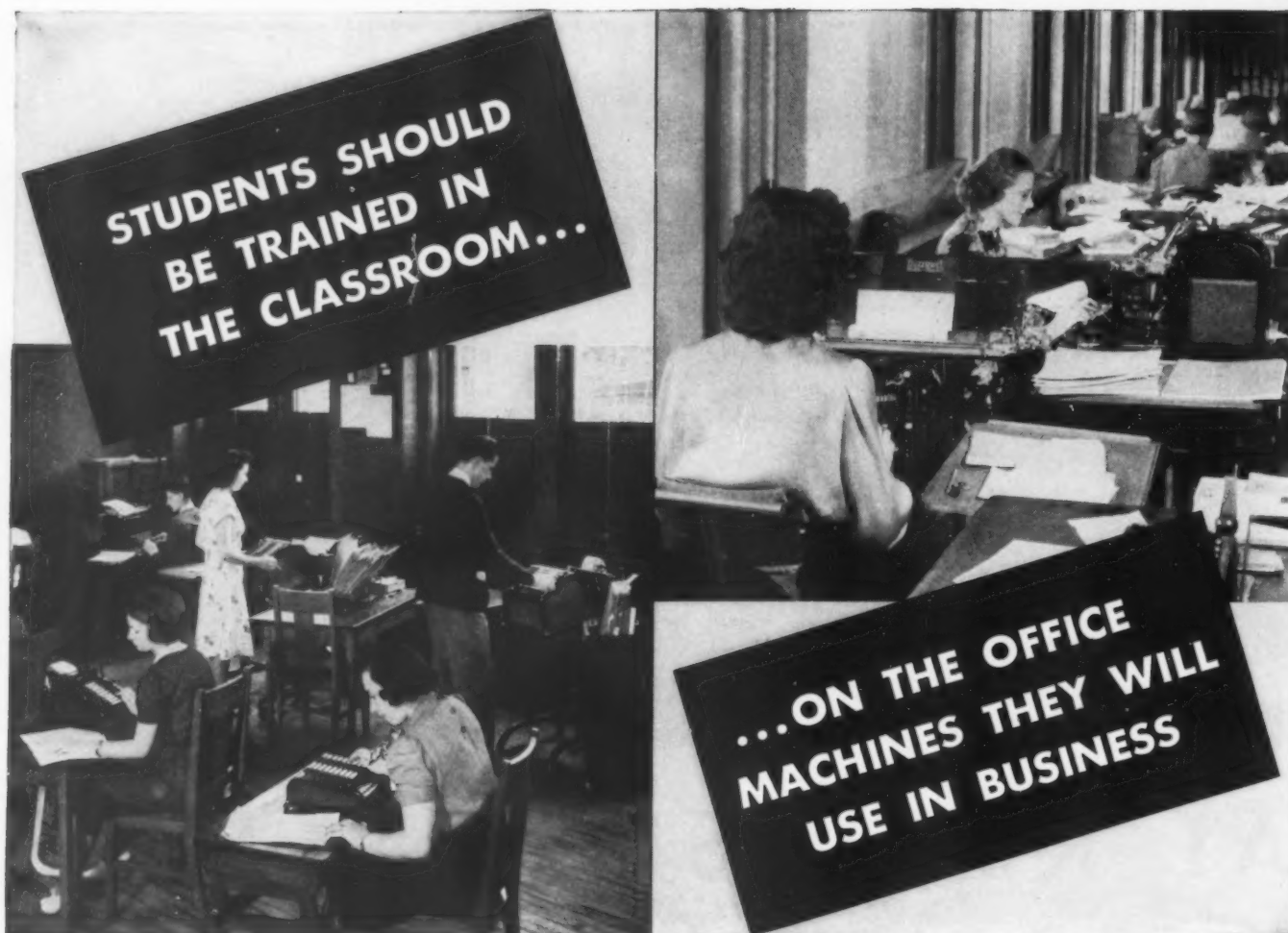
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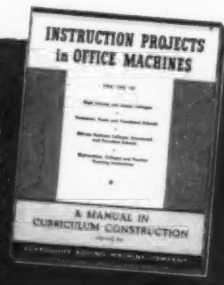
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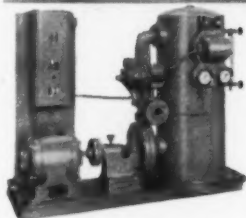
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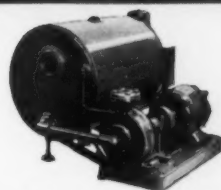


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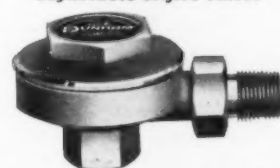
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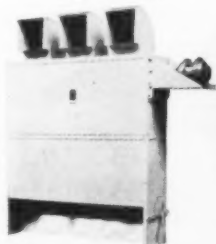


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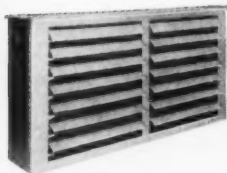
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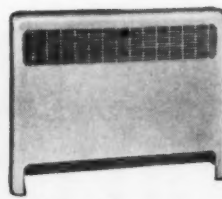
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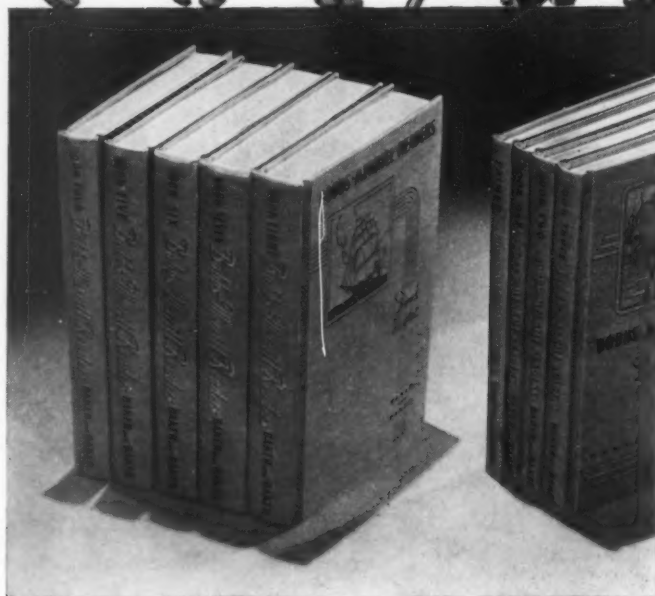
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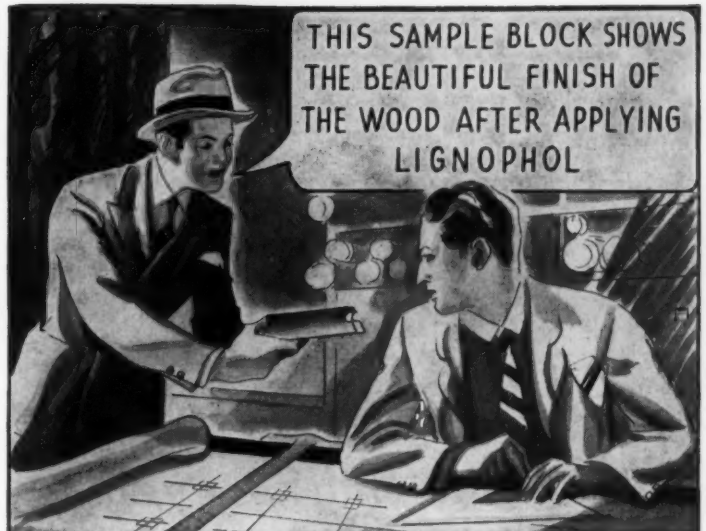
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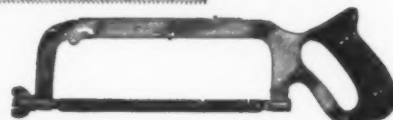
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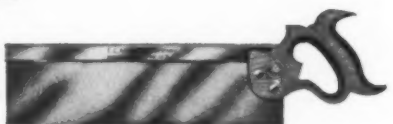
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INDEX OF ADVERTISERS

Addressograph-Multigraph Corp.	65
American Blower Corporation	69
American Seating Company	2
American Stove Co.	88
Archer Mfg. Co.	85
Architects Building	103
Arlington Seating Company	99
Atkins and Co., E. C.	14
Bassick Company	94
Bell & Howell Company	86
Bendix-Westinghouse Automatic Air Brake Co.	15
Bradley Company, Milton	89
Burroughs Adding Machine Co.	10
Celotex Corp.	4th Cover
Chelsea Products	94
Chevrolet Motor Division, (General Motors Corp.)	81
Colt's Patent Fire Arms Mfg. Co.	75
Congoleum-Nairn, Inc.	61
Continental Car-Na-Var Corp.	82
Continental Steel Corp.	80
Da-Lite Screen Co., Inc.	87
Detroit Stoker Company	100
Dick Co., A. B.	5
Draper Shade Co., Luther O.	94
Dudley Lock Corporation	97
Dunham Co., C. A.	11
Du Pont de Nemours & Co., E. I.	12
Finnell System, Inc.	97
Ford Sales Co., J. B.	7
Gaylord Bros., Inc.	91
General Electric Co. (Commercial Refrigeration)	79
Heywood-Wakefield	85
Hillyard Chemical Company	8
Hobart Manufacturing Co.	73
Holmes Projector Company	93
Hotel Kenmore	103
Houghton Mifflin Co.	101
Huntington Laboratories, Inc.	84
Hynson, Westcott & Dunning, Inc.	83
International Business Machines Corp.	9
Irwin Seating Company	101
Johnson Service Company	67
Kewanee Boiler Corp.	63
Kewaunee Mfg. Co.	91
Maple Flooring Mfgs. Assn.	59
Martin Band Instrument Co.	96
McArthur & Sons, George	12
Medart Mfg. Co., Fred	97
Minneapolis-Honeywell Regulator Co.	3rd Cover
National Lock Company	99
National Vulcanized Fibre Co.	93
Nation's Schools Publishing Co., Inc.	111, 114
Nelson Corporation, Herman	1
New York Silicate Book Slate Co.	90
Norton Door Closer Company	97
Pick Co., Inc., Albert	94
Pittsburgh Plate Glass Co.	77
Powers Regulator Company	99
RCA Manufacturing Co.	71
Richmond Fireproof Door Co.	95
Rixson Co., Oscar C.	79
Royal Metal Mfg. Co.	104
Rubon Woodfinishing & Products Co.	92
Sexton & Co., John	78
Smith & Corona Typewriters, Inc., L. C.	83
Society for Visual Education	87
Solar-Sturges Mfg. Co.	100
Sonnenborn Sons, Inc., L.	13
Squires Inkwell Company	6
Standard Gas Equipment Corp.	14
Taylor Co., Halsey W.	87
Tennant Co., George H.	88
Tile-Text Company	16
U. S. Slicing Machine Co.	102
Victor Animatograph Corp.	104
Webster & Co., Warren	2nd Cover
Webster Co.	98
Welfare Engineering Company	102
Williams Company	93
Yale & Towne Mfg. Co.	101
York Band Instrument Co.	92

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LOOKING FORWARD

Improvement in Operation

THE George-Deen Act offers ample opportunity for the use of federal-state funds for the vocational improvement of public school operating and maintenance personnel. Many states have already taken advantage of this fact and have provided, through cooperation between the state education authority and the community district, for special institutes and for short-term and evening continuation classes for janitors, firemen, engineers and craftsmen. The purpose of these courses is to teach operating personnel efficient methods of cleaning, heating and ventilating school buildings and of caring for landscaping and play areas.

The movement for training operating personnel started a generation ago in certain large city school systems. In those large centers in which the public schools are independent of the municipal political machine, considerable progress has been made in attracting and retaining a much higher type of operating personnel than was possible under the spoils system. The provisions for vocational education now make it financially feasible for smaller school systems to join this decidedly worth-while movement.

Heating and Ventilating

REGARDLESS of whether a school building is located in Maine or Florida, Minnesota or Louisiana, Oregon or California, the authorities responsible for the schools are confronted with the problem of providing adequate heating and ventilation. Geographic location has a large influence in determining the detailed manner in which this problem is solved but the general problem is fundamentally the same.

Heating and ventilating may be briefly defined as the production of conditions by mechanical and by natural means whereby the optimum temperature, humidity and air movement conducive to the best instructional conditions are produced. These heating and ventilating demands differ for diverse instructional demands. The temperature and humidity requirements of classrooms differ from those required in shops, auditoriums, laboratories and gymnasiums. The gymnasium produces heavy physical activity, which demands much lower temperatures than classrooms and laboratories. Because of the conditions of use, locker and shower rooms

demand higher temperatures than classrooms and also require means for reducing the unusual humidity created by the pressure of water vapor. Shops, laboratories and toilets require more specialized and faster ventilation than other parts of the building.

In the South and Southwest, where the temperature is generally mild during the winter months, schools require much less direct radiation and simpler ventilation. It is possible in these sections to adopt the open window method. The exceptions to this generalization are the schools located in industrial centers where the heavy carbon and sulfur content of the air makes special treatment desirable.

Severer climates and heavy industrialization in other sections of the country create an entirely different problem. Building construction must be heavier to withstand climatic rigors. Open window ventilation is more difficult because of the high carbon content in the air. If Pittsburgh, St. Louis, Chicago and Detroit omitted air conditioning in their schools, the pupils would be severely handicapped. Medical research has indicated that the lungs of children and adults living in the heavy smoke areas of St. Louis and Pittsburgh are actually brown or black as a result of inhaling the carbon particles. Air conditioning in the schools gives at least partial relief from this condition.

If the schools were operated during the summer months, it might be necessary to condition the air against excessive heat. The elementary and secondary plants are generally resting or being repaired during the three hottest and most humid months.

Heating and ventilation are twins. Both aspects of this general air conditioning process should be given exacting attention in terms of the requirements of specific climatic needs. In practice, this is not always the case. When economy is necessary to bring schools within budget limits, structural, heating, ventilating and plumbing qualities are too frequently sacrificed for some extrinsic or ornamental factor that is purely psychological. Superintendents and board members frequently feel that good mechanical ventilation verges a little on the side of extravagance. Air washers are omitted and, even if installed, may seldom be used when the strictest economy must be practiced. We recall a survey made some years ago of a school system that, according to the plans, had good mechanical ventilation and air washers in every building.

Field inspection showed that the protective covers had never been taken from the motors. The board had simply refused to pay for the current necessary to run the system.

Twin buildings recently surveyed are also illustrative. One had air washers and humidification while the other just blew the air at the fourth story level through tempering coils. In the first unit, repainting of walls and ceilings was necessary every eight years while the second required washing and repainting in alternate years. Air washers are actually an economy in building operation.

Tradition Dies Hard

FOR years school health and building specialists have been attempting to introduce mass shower baths for girls, as well as for boys, in public secondary schools in the interests of better sanitation and supervision over bathing. No problem has been involved so far as the boys are concerned.

It is difficult from an operational standpoint to keep the small, curtained individual girls' showers and dressing rooms clean and free from infectious disease. It is practically impossible for female bath attendants to supervise bathing and to ascertain the quality. To overcome these difficulties many medium sized and large cities have gradually developed the gang, or common, shower room. In a number of instances the change was made only after careful education of parents to the improved methods. In other buildings a few private shower stalls were built along with the gang showers and girls were given their choice of facilities. Officials noted that after a few weeks practically all the girls preferred the sociability of the common room to the private stall. When choice of facilities was permitted, there were few flare-ups from either prudish parents or poorly conditioned adolescents.

The recent dispute between school authorities of the Mark Keppel High School at Alhambra, California, has resulted in an unusual amount of newspaper publicity that promises to bring the entire problem before school communities. The girl in question asked, through her father, for an injunction from the superior court against the community shower on the grounds that "the community shower is immoral and deprives me of my right to privacy." The suit further contended that 375 girls had signed a petition requesting a return to private stalls. Although gymnasium classes are mandatory for all pupils in California secondary schools, post-exercise bathing is not required by law and the board of education countered by stating that no girl was required to take a shower.

The issue is a clear one. Each girl desiring to bathe in a private stall instead of community showers should be permitted this privilege. If the California authori-

ties would follow the examples of eastern cities and provide a few private stalls along with the hygienically more desirable sanitary gang shower room, thus permitting each individual to make personal choice, there would be no occasion for conflicts of this nature. After a brief interval, there would probably be only minor and isolated use of the private stalls. Regardless of what school health authorities may say about "silly and outworn prudery," it is important that the school remember that even "silly" traditions die hard and may be fanned into bright life by mandatory requirements concerning certain procedures, regardless of how good they may be. Mrs. Grundy is an active person. A more flexible procedure in this as well as other phases of instruction may save school authorities much community conflict which, in turn, affects appropriations.

Vocational Success

DR. Alanson H. Edgerton of the University of Wisconsin, for many years a member of The NATION'S SCHOOLS editorial consultants' staff, has completed a twelve year study of vocational education which is concerned primarily with the attitude of employers. This exhaustive and unusually detailed survey includes a study of 144,279 jobs in 2630 fields and follows 15,824 boys and girls through ten years of school and work. It has taken two years to prepare the information and findings for publication in two large volumes.

Doctor Edgerton has discovered that three fourths of the employers preferred versatility in employees. Stenographers who could keep books and lawyers who knew banking or accounting were more valuable than those who did not. Personality appears to be rated higher than either skill or intelligence. Almost three quarters of all dismissals were due to irritability, tactlessness, unfairness and bad manners. There was a difference in annual earnings of only \$139.44 per year between the most and least intelligent thirds, although the highest third rated on personality earned \$842.73 more than the lowest. According to Doctor Edgerton's findings, courtesy, courage and cooperation are the significant three C's to be desired in vocational education. Employers, almost without exception, prefer employees who are cooperative, loyal, polite, tactful, friendly, patient, alert, daring, confident and cheerful. Although these findings indicate relative placement value, there is no implication that personality without intelligence and skill will ensure success. There is small comfort for those who specialize in personality to the exclusion of true skills.

The Edgerton study demands the most careful examination not only by vocationalists but also by the general educator as well. It raises a number of questions and problems that should be given a common-

sense hearing even if the findings are contrary to conventional assumptions. The publication of this study should be one of the interesting events of the educational year.

Fire Hazard, New Style

THE New York City schools, under the aggressive leadership of President James Marshall of the board of education, are attempting to improve the efficiency of the public school personnel by retiring teachers who are physically and mentally unfit. The difficulties involved in removing mentally incapable teachers for the past several years have been so well publicized that they require no further comment. It appears that under current tenure legislation it is difficult to establish either physical or mental incompetency.

The most recent difficulty has been encountered in attempting to retire, with adequate pension, what the board president maintains to be a clear case of physical inefficiency. Mrs. Margaret S. Cunningham, aged 51, is accused of being a fire hazard and, therefore, too great a risk for the city schools. The dear lady, in slightly more than thirty-three years of teaching service, has managed to acquire considerable popularity with the children and also a total weight of 275 pounds. Owing to high blood pressure, extraordinary avoirdupois and a cane, she has difficulty getting into and out of school quickly. Her difficulty in getting into school has produced an average absence of almost 26 per cent and 744 marks of tardiness. The question of her efficiency has been raised by the board president.

Offhand it would appear that the responsibility for determining efficiency should rest with the executive personnel. There must be something wrong with the system or the tenure law if, in thirty-three years of service, these weaknesses were not discovered. This is clearly a case of terminal physical inefficiency that has been accumulating for many years. It raises an interesting question. If there has been no rule providing for retirement for physical reasons, is it sensible to make an *ex post facto* rule and then apply it to these cases in which personnel administration has been lax?

Administration has several possible solutions: retire this generously proportioned teacher arbitrarily and offer her the consolation of a pension; give her a room on the first floor near an exit to enable her to enter and leave quickly; furnish her with a small traveling crane that will deposit her outside of a specially constructed window in case of fire, or, forget about her and proceed when legal authority is granted to reorganize existing personnel practices so that the major portion of physical inefficiencies may be determined before one third of a century of service.

The purpose of tenure legislation is to protect the teacher in his work during periods of efficient service.

It should also be designed to protect the state and the child against inefficiency in the teaching personnel. The professional officers of the board of education should be responsible for determining efficiency and no sentimentality or emotionalism should be allowed to stand in the way of the best interests of the child or the state. What New York really needs is some sensible amendments in its tenure legislation.

Adult Education

EDUCATION within a democracy must be considered coextensive with life, beginning in infancy and ending with senescence. Within the community the education of the child and the education of the adult are functionally parallel institutional programs. In the final analysis the degree of success possible with children is conditioned by the ability of the adults to understand and to appreciate the educational needs of the children. Democratic educational progress is thus conditioned, first, through the education of the adult and, second, through the training possible for the children.

The adult education problem starts at approximately the age of 20 and continues until senescence. The theory that adult learning is difficult, if not unprofitable, has been disproved by recent researches. In many respects the adult years are actually more effective as far as learning ability is concerned than are some of the years of childhood.

Until recently the schools have contented themselves with providing more or less casual adult educational facilities through the evening schools. On the elementary level these have included socio-civic programs in language and civics to reduce illiteracy and to prepare foreigners for American citizenship. On the secondary school level the major attention has been given to programs of vocational improvement and adjustment without, however, providing for diagnostic and guidance service essential in the process of readjustment.

Within recent years there has been an increasing emphasis upon physical recreation and play with some cautious experimentation in the field of the fine arts.

There is an increasing appreciation of the truth that the continuation of the democratic life depends upon a greater degree of social, economic and political intelligence than has been required at any previous time in American history. This awakening interest will gradually produce a public opinion that will form the supporting base for a much richer and broader community program. Progress in adult education, particularly in the socio-civic division, should be made slowly and by careful experimentation.

The Editor

Community School Leadership



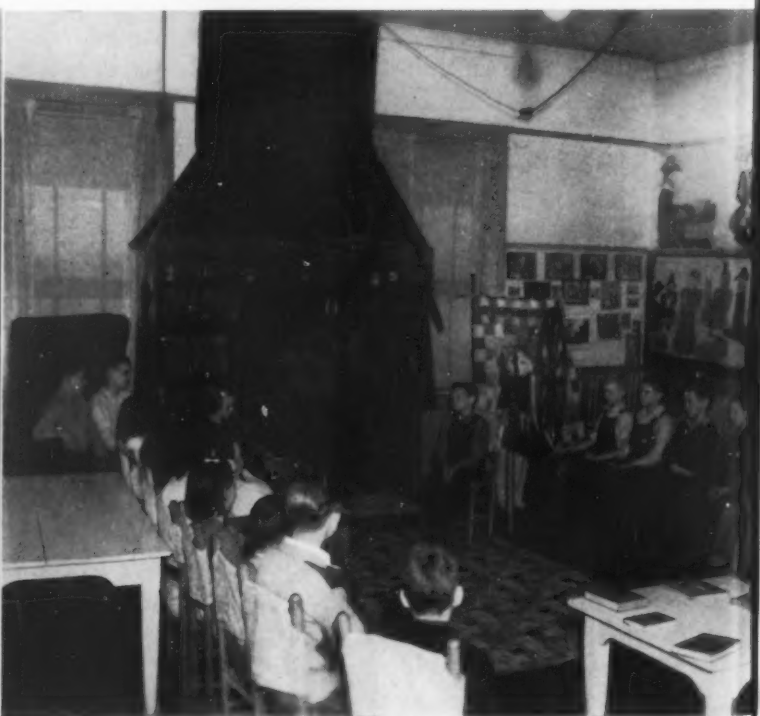
Before 1923, the Parker District schools, near Greenville, S. C., were largely owned and operated by the textile mills and there was no high school. Today there is a large high school plant housing 1400 pupils. Above is a scene from the modern high school library.



Most of the 14 elementary schools are still housed in the old textile mill buildings although the schools are now locally controlled. The emphasis has been upon significant teaching and learning, not upon buildings. Here is a fifth grade class enjoying a reading period.



The reasons for the achievements of the Parker District elementary schools are the schools' activities. The children help plan their work not only in the classroom but also in all school activities. In the picture above a second grade is studying fire prevention.



A fourth grade studying Colonial life in an untraditional manner. The center of interest in each classroom is determined by the teacher and pupils as they become acquainted. Despite the poor equipment, the old buildings have been renovated and made serviceable.

in the South

M. G. FRASER and SADIE GOGGANS

Dean of Winthrop College, Rock Hill, S. C., and
Professor of Education, Winthrop College, Respectively

THE South is often regarded as backward in education. Within the South the least equipment and the poorest teachers, it is generally believed, are in the cottonmill villages.

The Parker District schools, near Greenville, S. C., however, are evidence that these beliefs may no longer hold true. Here, before 1923, nine of 14 elementary schools were owned and operated by the mills; there was no high school, and teachers were often uncertified. In 1940 Parker District schools are owned by the people; a modern high school is constantly expanding, and the faculty members are meeting the needs of the community so well that the schools are a mecca for visitors.

Many mill workers in this district with incomes of \$1000 or less have homes surrounded by smooth lawns, winding stone paths, tiny pools, flowers and shrubbery. Inside these homes one finds furniture of modern design, venetian blinds, draperies and harmonious colors. Kitchens are models of neatness, economical arrangement and essential modern conveniences. The cost? Usually about \$10 or \$15 additional for the whole interior. Only on close inspection does one see that the materials used are the least expensive possible, perhaps made in the mills themselves.

The beauty, comfort and utility in these homes have been brought about by the public schools. Thirty-two hundred people are enrolled in evening classes, which comprise the People's College. Here the director of music in the school trains church choirs and community choruses; the teacher of mechanical drawing instructs machinists in the reading of blueprints; a psychologist from a near-by university discusses problems of child growth, and bankers conduct forums to plan investments.

Here it is, too, that the home economics teachers, together with landscape architects and others, conduct classes in home and lawn improvement. They leave the classrooms much of the time and go into the homes themselves and they en-

Right: Fourth and fifth grades preparing a garden adjoining school property. Below: Kitchen and living room resulting from home beautification project.



courage students to disseminate their learning among their neighbors. This People's College is open day and night.

A few years ago the superintendent of schools, the dynamo behind Parker District's unusual educational activities, was questioned on the street: "What would you do with \$1100 if given it?" His ready reply mentioned the community need that had recently come most forcefully to his attention: "I would use it for the care of expectant mothers."

Not school supplies or scholarships, but community needs! In that reply and in the energy supporting it lies the distinctive characteristic of the Parker District schools. They are used primarily to serve the community, the whole community, and only partially to give schooling to boys and girls.

The \$1100 was given. A five room house across from the high school was obtained as the "Shelter." Three nurses and the services of a clinical staff of doctors were hired with funds from the Duke Foundation and elsewhere. On a recent day in the Shelter there were 10 new-born infants. In an adjacent room there were a few older babies, including foundlings and the sick. Also, there were the mothers of new babies.

The staff was comprised of a nurse giving advice and directions to mothers who were dropping in for help; another nurse in the diet kitchen; still another on duty with the patients and, now and then during the day, home economics teachers and some of their high school pupils. All this was under the guidance of the public schools!

There are many other direct services that these schools render their community. In all parts of the district, health tents and services are organized as they are needed, street by street. Managing this organization are the superintendent, his regular school teachers and volunteer laymen. We asked one seventh grade teacher, who was explaining with enthusiasm the details of this work: "With your regular teaching, this must take up almost all of your time."

"Are you telling me!" was her answer but her smiles and enthusiasm continued.

In the evenings all the facilities of the school plants are open to the

public. Last summer an average of 3500 people who work during the day enjoyed softball, tennis, bowling, horseshoes, volleyball and checkers at the schools. The high school cafeteria may be engaged by any group in the area for a luncheon or dinner practically at cost. A traveling library with headquarters at the high school brings weekly to each school and section of the district books, magazines and papers. There is even a museum, built of logs by the school children; its contents are largely local products gathered under guidance by the children themselves.

Most of the 14 elementary schools are still housed in the old mill school buildings. In 1923, when the school board decided to get a superintendent, it asked several schoolmen of experience to come for interviews. Despite the high salary offered, the best of these men refused to work in such a poor community with such poor equipment. But new buildings were then impossible for financial reasons. The man finally chosen as superintendent has renovated the old buildings and made them serviceable. The emphasis has been upon significant teaching and learning, not upon elaborate school buildings.

Go to any of these elementary schools. The grounds are noticeably clean. The buildings are painted and have adequate windows. Inside they are cheerful with refreshing colors and strikingly attractive decorations, though inexpensively furnished. Outstanding, however, are the appearance and manner of the children. They are for the most part boys and girls of textile workers and, though dressed in low priced clothing, they are clean, extraordinarily well-behaved and noticeably happy.

The reasons for these achievements are well known to many activity schools. The children have some traditional drills done in an untraditional spirit of sociability, but it is the activities that have brought about the unusual achievements. The children help plan their work, not

only in the classroom but also in all school activities.

A council elected by the pupils decides which group of children will furnish a display, such as the frieze or the living plants for the school halls. The council cooperates with other groups in deciding upon the part each grade may have in preserving the school grounds. A seventh



grade, perhaps, will plant trees, shrubbery and bulbs to conserve the soil on a hillside; a fifth grade will make a lily pool; a third grade will sow the winter lawn, and a first grade will sow seed by the side of a rock wall on the terrace.

Pupils help to landscape lawns in the community and to redecorate the interiors of homes. The center of interest in each classroom is determined by the teacher and the children as they become acquainted. They seek the aid of anyone in the district who can help them and obtain the necessary books from the materials' bureau in the high school.

Nor do the children confine their learning to the community and their

books. They take trips. Each fifth, sixth and seventh grade makes an appointment for the school camp on Paris Mountain not far away. Here for a few days the group and the teacher live cooperatively, doing their own cooking and performing some service for the camp. The sixth grades at one time or another, usually during the season when the famous magnolia gardens are open, go to historic Charleston. They often attend sessions of the legislature en route.

Smaller children go on many trips to practically every place of industrial, scenic or occupational interest. The children of the seventh grade, the last grade in the elementary schools, visit the high school and

occupy the whole of a double block, with comfortable space surrounding them.

The center of the main building is an exceptionally attractive library with small conference rooms near by. A materials' bureau houses a large supply of books, pictures and pamphlets. To the support of this bureau each first and second grade child pays 65 cents a year; this, along with appropriation from district tax funds, is sufficient but the books remain the property of the entire district.

"Showers" to get illustrative materials are held at times and W.P.A. helpers mount, classify and assemble pictures and charts. This bureau keeps the records of the units of work in which the children of various age groups in each school have participated, and here teachers assemble to work and to plan. A special teacher-librarian is in charge.

The high school is in the process of changing its curriculum. Four sections of the eighth grade, which is included in the high school, are continuing the integrated work of the elementary schools. These sections of high school children remain

with one teacher for all of their work during the day. Last year in one section, 39 children and their teacher studied the homes from which they came and decided to make their high school classroom

In circle: Pupil gardeners beautifying the yard of a home near the school. Left: A group of eighth graders fixing up a room in the home of one of their classmates.



plan with their seventh grade teacher what they would like to study and to accomplish in high school.

The high school of 1400 pupils has a magnificent plant, partly under construction and being built with government aid. Besides the main building, there is an auditorium with a seating capacity of 1500. There are athletic fields, tennis courts and outdoor concrete bowling alleys. The gymnasium is in a separate building, with a main floor large enough for two full-sized basketball courts. A still larger building is for vocational education and contains the most modern equipment. There is also a small building for mechanical arts and music. Together, these buildings

into a home. They had a living room, library, kitchen, dining room and bedroom. They planned, measured, bought and constructed the walls and furnishings, as well as the equipment. They more than kept step with children of their age.

Of these 39 children one dropped out during the year; the other 38 returned to school this year, although at the beginning only five were interested in traditional high school studies.

Other sections in the high school have integrated work in the social studies and English; in the social and natural sciences, or in the social and natural sciences and English. One teacher has the pupils for two or

three periods during the day. The "work cooperation plan" with the high school and with the diversified occupations in Greenville is being carried out, enabling dozens of pupils to stay in school and, incidentally, to get the best possible vocational guidance and placement. This is especially important because only 9 per cent of recent Parker District graduates have attended college.

Such are some of the outstanding features of the Parker District schools. How did it all start? In a sense it started because of certain needs: the need for unanimity among school people as to the status of children who, as their parents moved from mill to mill, frequently transferred from school to school within the district, and the need for better educational opportunities among both children and adults.

Primarily, the quality of the Parker District schools is due to the vision and efforts of a few leaders and, in particular, of the one man to whom most of the administration has fallen. This man, although he knows Dewey's and Thorndike's theories, has the layman's point of view and language. He was hired more than 20 years ago by the owner of a mill near Greenville as a recreational leader. This work made him acquainted with the needs of the people and with the possibilities of the schools.

Then the nine textile mills, four suburban communities and one rural district in the neighborhood of Greenville were coordinated into the one Parker District. A superintendent of schools was sought. Because other qualified educators would not accept the position, the man who had furnished much of the vision and energy thus far was told that he must take the job. So L. P. Hollis began to plan for these 14 isolated elementary schools and a high school yet to be built. He continued to plan also for the textile workers, suburban dwellers and farmers and for his untrained teachers so that they might become an efficient corps of educators for both schools and community.

All the foregoing plans have been largely carried out. Parker District schools are becoming famous; the community cooperation is a model of its kind, and a few teachers instruct in near-by college summer sessions and go away for the best training.

Capitalizing Upon Teachers'

DETA P. NEELEY

MANY earnest, alert, rural teachers are making the school a place in which children can live happily. They are using child experience, home, farm and community resources and problems in a new way to the end that child and community life is enriched.

Rural supervisors are largely responsible for attempting to increase these teachers' awareness of rural resources and their challenge. While supervisors recognize the value of children's experiences outside the classroom, a recent study of rural teachers' problems and supervisors' procedures for dealing with them¹ revealed that most of them ignore the nonprofessional activities of teachers as aids in solving their problems. It is the purpose in this article to deal with one phase of this extensive study, namely, nonprofessional activities of teachers.

Each selected supervisor was asked to select five teachers under his supervision who needed the most supervisory help. The teachers were to be those employed in small rural schools who were having teaching difficulties involving children in the primary grades.

Collecting Data for Study

Data were collected concerning the work of each teacher and of each supervisor. Each teacher was visited several times by her supervisor and her work subjected to a thorough analysis. Records were kept on forms designed to yield a comprehensive analysis. Complete and usable records were received regarding 91 rural school teachers and the supervisory activities of 23 rural school supervisors.

When all the records of the 91 teachers' problems were analyzed, it was discovered that they were confronted with a wide range of difficulties. Some difficulties encountered by them were due, at least in part, to their previous training and experience.

The types of schools in which these

¹Neeley, Deta P.: Rural Teachers' Problems and Supervisors' Procedures for Dealing With Them, Doctoral Dissertation, University of California, May 1937.

teachers were employed suggest the complexity of rural teaching. Sixty-four per cent of the teachers were employed in one teacher and two teacher schools and 26 per cent taught all eight grades. Only 5 per cent were employed in graded schools. The problems were varied and numerous, the range of subject matter to be mastered and taught was wide, the community responsibilities were probably greater than in any other teaching service. Not infrequently these teachers were expected to do the work that, in a graded school, is performed by a janitor, a principal, eight grade teachers and a nurse.

Employment Other Than Teaching

<i>Types of Employment</i>	<i>No. of Teachers</i>
Saleswoman in store	12
Clerical work	6
Homemaking	6
Newspaper work	5
Playground director	4
Bookkeeping	2
Camp counselor	2
Fruit picker	2
Pianist	2
Piano teacher	2
Miscellaneous occupations	19
Total number of activities	29

The majority of these teachers were not only well trained but they were experienced elementary teachers as well. Eighty had had professional teaching experience. The number of years of experience ranged from one fourth year to 18 years. Nine were beginning teachers and one of these reported having had three months of experience in a nursery school.

Having once begun to teach, more than two thirds of the group had continued in service. Of the group reporting that their teaching experience had not been continuous, there was a range in time of from 2 to 23 years in which these teachers were not employed in the teaching profession. A majority of the teachers entered the teaching profession before 1930, but from 1930 to 1935, 33 teachers entered this field of employment.

Fifty-four teachers reported that they had had no employment other than teaching, while 34 reported employment in various other fields. Saleswoman in store, clerical work, homemaking, newspaper work and playground director were the most frequently named occupations.

Thirteen of the 22 teachers reporting that their teaching experience had not been continuous had entered no other type of employment. Five reported that they became homemakers; two reported serving as clerks in stores; one became a bacteriological technician, and one did newspaper work, proofreading and editing.

Five teachers failed to report their travels, but of the 86 reporting 63 have traveled outside the state of California. Fifty-four have traveled in various parts of the United States; 21, in Mexico; 17, in Canada; 5, in Hawaii; 4, in Alaska; 3, in China and Japan; 2, in the British Isles; 2, in the Panama Canal Zone; 2, in Cuba; 1, in Central America, and 1 in Central Europe. One teacher has the distinction of having traveled more extensively than any of the other teachers. She has visited almost every state in the Union, Hawaii, Mexico, Central America, Cuba, Central Europe, China and Japan.

Sixty-Four Report Hobbies

Eight teachers failed to list their hobbies, while 19 reported that they had no hobbies. Sixty-four teachers reported hobbies of various kinds.

Nonprofessional activities of teachers have possibilities for broadening viewpoints and in furthering a desire and feeling of obligation to develop their own personalities along interesting lines. Teachers must be persons of imagination, of broad interests and capable not only of instructing children but of leading them and of opening new vistas.

Country people and children are often indifferent to the beauty about them and need to be made cognizant of the wonders that greet them on every hand. It is the job of the rural

Out-of-School Interests

Educational Research Worker

teacher to do this, to help them interpret the things about them, through her own travels and experiences, through poetry, music and art.

The implications for supervision are clear. Guiding the teacher who feels a thrill in the beauties and possibilities of country life to paint in an inspirational way the splendors of rural surroundings through her own bents, interests, travel and other forms of experiences so that the changing wonders of nature make for happiness, large vision and contentment in the life of rural people is a vital necessity of supervision.

Music Was Common Hobby

One of the most frequently named hobbies was music. Music has a socializing and harmonizing influence. Supervisors saw in this hobby a real possibility for meeting the needs of the country community. Experience in the rural choir and in song festivals made for happiness, poise and freedom of spirit. A few teachers, through their own initiative, made the most of their own abilities, bents and interests in the enrichment of country life but through the leadership of a creative supervisor the possibilities for development may have been even greater.

All 23 supervisors included in the study recognized the importance of pupils' out-of-school activities as a means of helping teachers solve their problems. Teachers were led to study the chronological data of their pupils, their intelligence, their moods, personal description, results of medical examinations and physical developmental history, moral character, an account of their behavior, their choice of companions, their amusements, kind and extent of employment, home and neighborhood conditions.

While all supervisors guided teachers in this extensive study and stressed the implications for the improvement of instruction through such a knowledge of pupils' out-of-school activities, only six of the 23 supervisors made use of the nonprofessional activities of their teachers.

An example from a supervisor's letters, logs and reports shows how nonprofessional activities were used:

Type of School: Two room school with practically all Japanese children.

Number of Grades Taught: 1, 2, 3 and 4.

Training of Teacher: Two years of college.

Experience of Teacher: One year in the primary grades.

Major Problem: Classroom performance.

Specific Problems: "My personal feeling is that this teacher has had better training than she is using, is intelligent, is attractive and knows it, has risen to principalship too soon (only second year of teaching), is following the line of least resistance in her work, needs to realize that her alibi, 'These are Japanese and can't talk,' is not a real reason for a non-participation program and needs careful guidance in planning her work. Room ordinary in appearance, nothing seasonal in evidence, material not well organized, no pupil work on display and blackboards messy. Teaching procedure matter of fact, uninteresting and teacher's heart not in it. Teaching technique faulty: (1) reading methods not good, children point to each word with finger, read one word at a time without expression; (2) writing careless, poor letter formation and no interest. Children are shy, obedient and docile, all Japanese."

The problems indicated for this teacher by means of a comprehensive check list are as follows: how to use materials in addition to those in the text; how to ask questions that require summaries and organization; how to use illustrations to clarify ideas; how to use visual aids effectively; how to utilize whenever possible actual normal experiences; how to have all pupils take part in the learning experience; how to present material in the form of problems that stimulate curiosity of pupils; how to develop attitudes and ideas; how to form proper skills and habits; how to build and teach the subject as a sig-

nificant part of a comprehensive program of activities; how to plan activities in a program of interest and profit to children's linguistic, dramatic, artistic, constructive and exploratory activities; how to develop free conversation about the subject; how to provide opportunities for discussions among pupils; how to use games and devices to make drill effective and attractive; how to arrange practice periods so that newly formed bonds are exercised again before they have had time to fade materially; how to encourage self-activity on the part of pupils; how to give an introduction in making an assignment that arouses interest and creates a desire to attack the problems; how to correlate the work around one large unit.

Did Not Exhibit Teaching Skill

The problems indicated for this teacher by means of the Howe-Kyte Diagnostic Record of Teaching are as follows: From the standpoint of personal attributes she was blunt, unsympathetic and unresourceful. With respect to professional attributes she was commonplace in professional attitude and indifferent in loyalty. She was uninterested in her pupils, ineffectively controlled her class and was unskillful in influencing pupils' habits. With respect to the teacher's teaching procedure, the facts indicate that she was intermittent in determining and maintaining sound educational purpose. She did not exhibit skill in meeting an actual need.

A conspicuous weakness appears in the attempt made by this teacher to guide the pupil's method of attack; she gives unrelated help to the pupil in connecting and converting past experiences into the development of new subject matter. In assisting pupils to collect and to organize new materials into working form, she is illogical. She is dogmatic in aiding the pupil to test and use his plan. Attention is never given to individual needs. In the choice of instructional material, the ability of the teacher is trivial and she makes doubtful use of instructional materials. Little skill is shown in questioning methods and



Photograph, courtesy St. Louis Public Schools

One of the favorite hobbies of teachers is music, an interest that can be utilized for meeting rural community needs.

pupils' time is used in a wasteful manner.

This teacher is ineffective in the routine handling of pupils and materials and her room is disorderly. Her pupils are indifferent in their attitude toward school, obedient to her, indifferent toward classmates and wavering in their attitude toward life. Even greater weaknesses are detected in the pupils' behavior toward work.

Problems indicated for this teacher by means of graphic record of pupil and teacher activity according to time are as follows: The teacher scolded her pupils more often than she praised them. Nine out of every 10 questions asked were fact questions rather than thought questions. About one minute out of every 13 was spent in interrupting pupils. Less time was expended in the assignment of a lesson than in any other activity. The teacher talked three fourths of the time of the class period. Every answer made by pupils was by a single word. Five out of every 13 answers were correct; all responses were called for by the teacher, which seemed to indicate pupils were not free to respond without being asked. The time each pupil was active va-

ried from one fourth minute to two minutes in duration.

Employment Other Than Teaching: None.

Travel: United States and Mexico.

Hobbies: Gardening, tennis, ice and roller skating.

The supervisor utilized the non-professional activities of this teacher to aid in the solution of her problems. One of the carefully planned phases of the supervisory program for aiding this teacher in the solution of her problems was to guide her in utilizing her hobby of gardening. There was evidence in later reports that the utilization of this hobby had proved a successful means in aiding her. The following statement by her supervisor is indicative of some of the results achieved:

"Things are moving along so much better that I feel greatly encouraged. From a bewildered state of mind I think Teacher A has emerged into a fairly promising attitude.

"Both she and the pupils enjoyed being praised for the more attractive room and the better work displayed.

"The school garden is attractive and several varieties of flowers are blooming. Almost all the parents of

these children are Japanese gardeners so that the tieup between home and school is good.

"The teacher is more at ease and much friendlier. I think she feels now that we are working on a certain problem jointly and she knows that I am interested and not just curious or critical."

Movies at Commencement

Motion pictures, showing the senior class of the high school at Macksville, Kan., at its various classes and activities, were presented last year as a part of the commencement exercises. A local amateur photographer photographed the class activities. The self-reliant seniors would have none of outside commencement speakers to tell them how dark their future looked and how many stumbling blocks they would encounter.

Instead, members of this class planned and presented their own program. The entire program was carried out by the pupils, with the exception of the presentation of the class by Supt. H. E. Zimmerman and the presentation of the diplomas by R. M. Denbo, school board director.

They Call It "Parents' Night"

T. S. KLEIN

Principal, Surrattsville High School, Clinton, Md.

IN AN effort to raise the standards of American education and to render it useful and flexible, many changes have been introduced into the traditional school program. These take the form of industrial arts, home economics, physical education, music and extracurricular activities. In smaller communities where progress is slow and is often questioned, the school must educate its patrons to understand and appreciate the work that it is doing with their children. Too often, parents are inclined to comment unfavorably on the school's "new-fangled ideas," merely because they do not understand them.

The problem of best meeting the needs of its pupils has been facing Surrattsville High School, Clinton, Md., for an increasing school population, because of its proximity to Washington, D. C., brings in a wide variety of pupil personalities.

Through its principal and faculty of eight, Surrattsville is working toward the new type of school that will best serve its 230 pupils. In spite of the limitations facing a small school and faculty, industrial arts, vocational home economics, music, physical education and a complete new schedule of extracurricular activities, including clubs, assemblies and home-rooms, have been added to the school program within the last two years.

Plan Informative Program

In order to reveal to the people of the community just what the school is attempting for its pupils, a program called "Parents' Night" was designed. This was a panorama of the achievements of the school under its new program, intended primarily to inform its patrons rather than to entertain them.

The program was presented in the school auditorium. First on the program were selections by the orchestra, which furnished music throughout the evening. This group is composed of pupils who have had some instrumental instruction and are interested in orchestra work. The glee club of 25 girls furnished the vocal music. At the end of the program

both orchestra and glee club joined to present their interpretation of the colorful "Down South."

The industrial arts department and the Manners and Conventions Club exhibited their work in dramatic form. The industrial arts skit, given by five boys, dramatized the practical application in their own homes of training received in that field. The play of the Manners and Conventions Club, entitled "Charlie Learns About Good Manners," contrasted the actions of Johnny Goodmanners and Charlie Poormanners at a party. These boys and their supporting cast demonstrated the simple rules of etiquette which they are learning in this club and the practical value and necessity of the simplest good manners.

Pupil Thinking Shown in Speeches

As an outgrowth of their studies in American history each member of the class had previously written a paper entitled "What I Owe America and What America Owes Me." One paper of this lot was so outstanding that its author was chosen to present it on the Parents' Night program as representative of the type of thinking pupils are able to do as a result of their work in social studies. Also in the line of pupil speeches was another entitled "Chemical Warfare," given by a member of the science club from one of the regular club programs.

The home economics department demonstrated its work in the form of a style show. Members of the freshman, sophomore and junior classes had made dresses as part of their sewing projects. All materials and styles were represented, ranging from the simple cotton frocks of the freshmen to the more elaborate evening gowns of the juniors. To the music of piano and violin, each girl modeled the dress that she had made while a reader described the styling of the costume.

A striking feature of the program was furnished by the physical educa-

tion department. Although this field is new at Surrattsville, it is making rapid progress. Besides the regular program of sports and the development of teams for intramural and interscholastic athletics, tumbling and stunts have been stressed for their values in developing muscular coordination, in affording opportunity to display physical powers and in encouraging cooperation and the group spirit.

With an orchestra accompaniment, pyramids were built rhythmically, and various diving acts, chair acts and single acrobatic acts by talented pupils were performed.

As a final exhibition of Surrattsville's progress, a special two page edition of the school newspaper, the *Owl*, was distributed to the parents. This paper is published by the senior class following its study of journalism in English. It is issued every six weeks.

The principal and faculty feel that the experiment was a success. All parents and friends of the school were invited, and approximately 500 attended. Before the program, opportunity was given for everyone to go through the school building and to see the exhibits of various departments. During a brief intermission in the program, refreshments were served. School patrons appeared to be pleased with what they saw of the school's work.

Event to Be Repeated

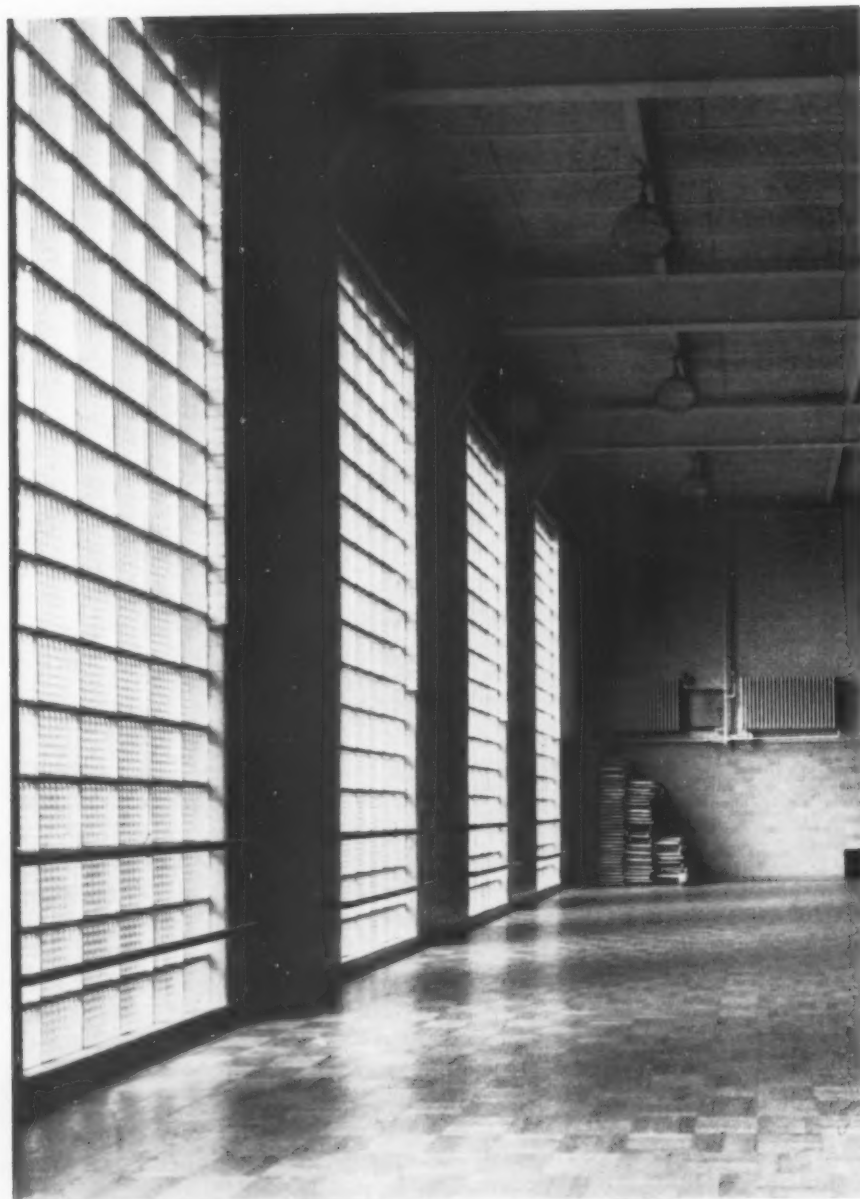
It is planned to make the event an annual one. Each year the program should show some growth in the school's activities and some improvement that it is making in providing better for the limitations and abilities of its pupils. If progress and community support continue, as they have to date, Surrattsville hopes ultimately to become a complete new type of school, which forgets the traditional ideas of education and thinks most of making its boys and girls better citizens and better adjusted men and women.



School at Wauwatosa

R. F. CLAS

Clas & Clas, Inc., Architects, Milwaukee



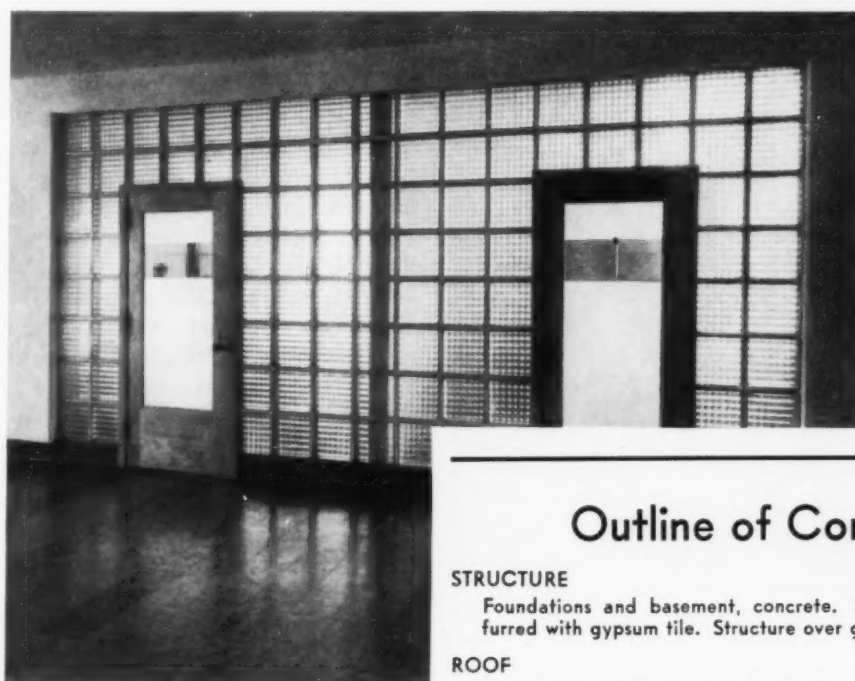
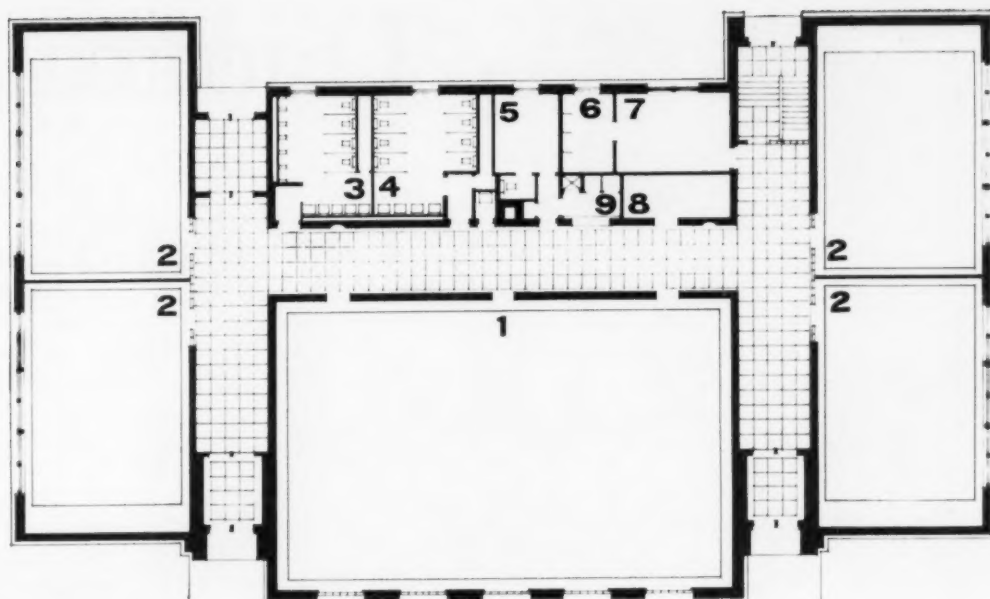
WAUWATOSA, Wis., is a semiurban community inhabited principally by persons employed in Milwaukee, the business center of which is 8 miles from Underwood School. When the old school building was condemned by the state school department, Underwood School District No. 10 financed a new school with the help of a W.P.A. grant.

A new 3 acre site, consisting of rolling farm land, was purchased, which permits ample space for playground, baseball and other games. The building serves as a community center, meeting and voting place, in addition to its regular purpose as a school. The kitchen is used for the children and for community dinners as well. The gymnasium is used for athletic purposes, mass meetings, amateur theatricals, forensics, dances and other social functions.

When a one story building, using the "H" plan, was suggested, it met with instant approval. The building, facing south, permits east and west light into the classrooms; the gym-

Top of page: Underwood School at Wauwatosa, Milwaukee County, Wisconsin, is used as a community center meeting and voting place. Glass block windows add a modern note to the design. **Left:** The gymnasium has fixed glass block windows and is air conditioned, as is the entire school.

Key to floor plan: (1) gymnasium; (2) classrooms; (3) and (4) toilet rooms; (5) teachers' room; (6) library; (7) office; (8) storage; (9) the food service room.



Left: A new type of wire glass used for classroom doors is etched. Unusual care was exercised in planning for daylighting the corridors. Except on dark days no artificial light is used since the ends of all corridors also have borrowed lights. Classrooms have standard balanced windows and east and west natural light.

nasium is to the south and the service rooms are to the north. The plan provides a central location for the service and gymnasium portions with classrooms grouped around them. In a partial basement below the building are the heating plant, water system, work shop and a kitchen, which serves the upper floor by means of a dumb-waiter.

While the southeast classroom is used temporarily as a kindergarten it is intended that such a department will be constructed later to the north of the east classrooms. It will be seen that expansion in this plan can be readily made on the north so that eventually an eight room school will result, which is as large as a district school gets to be in this area.

Outline of Construction Details

STRUCTURE

Foundations and basement, concrete. Superstructure, solid brick walls. Outside walls, furred with gypsum tile. Structure over gymnasium, steel.

ROOF

Gymnasium, triple purpose structural roof slab consisting of a fireproof material having a noise reduction factor of 50 per cent and an insulating co-efficient of 0.15. This, together with the supporting steel, has been thoroughly sprayed with white industrial enamel. Rest of roof structure, wood, with 4 inch rock wool insulation. Roof is dead level with a twenty year bonded pitch and gravel roofing.

WINDOWS

Gymnasium, fixed glass block windows, eliminating usual net guards. Classrooms and other rooms, standard balanced windows.

FLOORS

Gymnasium and classrooms, wood block. Remainder, asphalt tile.

WALLS

Gymnasium, wainscoted with salt glazed tile. Toilets, wainscoted with white ceramic tile. Color scheme: tints of brown for classrooms and gymnasium; black partitions, black floor border, red field and white tile walls for toilets.

HEATING AND VENTILATING

Air conditioning throughout. Some direct radiation so that heating is a split system under thermostatic control.

LIGHTING

Soffits of main entrance, aluminum with pierced flush glass panels for lighting. Unusual care was exercised in planning for daylighting corridors. Except on dark days no artificial lighting is used, since all corridor ends have borrowed lights. The new type of wire glass used for classroom doors was etched.

Learning to Live



Every child from grades 3 through 6 spends half an hour in the library daily.



Primary children can enjoy the library, too, when books are selected for them.



Committees engaged in library work in connection with classroom activities.

SACRAMENTO, a city of 100,000 population, has 17 elementary schools, including grades from the kindergarten through grade 6. The schools range in size from a three teacher school with an enrollment of 75 children to a school with an enrollment of 1100 children. Each of the schools has an excellent library of its own with standard library equipment and with the book collection arranged according to a simplified Dewey decimal system of classification. The school libraries are under the direct supervision of an assistant superintendent of schools and the librarian of the professional library.

Books and reading have come to have a meaning for children in Sacramento since libraries have been established in the elementary schools. Every child from the third grade through the sixth grade spends at least a half hour daily in the library. This chance to read freely has done much to improve the general reading ability of individual children. A close tie-up between the library and the classroom is provided by the development of courses of study on a library basis rather than on a textbook basis. For example, in social studies and science there is no central



in the World of Books

LEO B. BAISDEN and JEWEL GARDINER

Assistant Superintendent and Professional Librarian, Respectively, Sacramento, Calif.

text for any unit of work. Instead, each unit has a bibliography of from 20 to 60 books, giving page references. The books for any unit vary from easy reading to difficult reading. This setup makes it imperative that teachers and children use the library and the plan of listing page references makes the material easy for them to use.

Each library is in charge of a teacher-librarian. In small schools the work is so arranged that one teacher has entire charge of the library. In the average school, two teachers are in charge. At present there are approximately 30 teacher-librarians in the 17 elementary schools. All teacher-librarians have had some professional library training, either as part of their college work or in summer sessions. No teacher is assigned to the library without special training in library technics.

The library program involves a wide variety of activities. These activities include recreational reading; reading for information in connection with classroom work and activities; instruction in the use of books and libraries, including instruction in the use of dictionaries, encyclopedias,

atlases and other reference books; use of an index, table of contents and other parts of a book; use of the card catalog, the pamphlet and picture file, and classification and arrangement of the books in the library. Attractive bulletin board displays and book exhibits are used as a means of interesting children in books and reading.

One of the important activities is recreational reading. This is the time when the children are free to read whatever they wish and to read just for the fun of reading. There is no definite testing plan for free reading and the children are never graded on the reading.

Free reading periods have opened up to many children for the first time the real joys of reading and of books. The success of these periods depends almost entirely upon the ability of the librarian to guide children in their reading. When a child has a book that he can read with facility and upon a subject of vital interest to him, his joy in reading is supreme. If he does not have the right book the librarian must find the book for him. This type of

guidance requires skill. If the librarian suggests the wrong book too often, the child soon loses faith in her knowledge of books.

Successful reading guidance demands extensive reading of children's books and real love of books, plus a genuine interest in children and a sympathetic understanding of their interests and problems. The librarian often finds children without any book interests. In these children she seeks to develop interests. Again, she finds many children who are perfectly able to make their own book selections after their first few visits to the library.

Reference reading in connection with classroom activities or units of work is different from recreational reading. During periods devoted to reference work the purpose of the child's reading is clearly defined by the nature of the work he is doing in the classroom. He may have been asked to prepare a report on the use of glass bricks in modern buildings as his contribution to a unit on housing, or he may be a member of a committee to prepare a report for the science class on "how animals



Left: Attractive bulletin boards help to stimulate interest in reading books.



Above: Even children can engage in reference work for classroom assignments.

protect themselves." The child who is reading for information must learn to make either mental or written notes of the facts he finds. This type of reading includes the use of encyclopedias, magazines and fugitive materials, as well as of supplementary books.

Books and libraries become sources of information only when one knows how to use them. Periods devoted to library technic begin with the low third grade and continue throughout all the grades. Even the youngest children learn that books are shelved from left to right and are arranged on the shelves alphabetically by the first letter of the author's name.

Since children no longer learn the letters of the alphabet as part of their reading, it is necessary for the librarian to spend some time teaching them the alphabet as an essential foundation for using dictionaries, encyclopedias, indexes, the card catalog, the pamphlet file and the shelving of books. Habits of neatness, courtesy and general good citizenship are stressed, beginning with the first lessons in library usage.

Begin Library Use Early

Fourth grade children have occasion to learn some of the Dewey decimal class numbers. They curiously ask questions about the card catalog and enjoy seeking in it for familiar titles and authors. Simple dictionary work is begun in this grade and some attention is given to important parts of a book: the title page, the index and the table of contents.

In the fifth and sixth grades more detailed and extensive library lessons are given. Reference reading is required for most classroom activities and so the children are taught how to take notes; how to use and when to use the index and table of contents in books and magazines; how to use atlases, encyclopedias and the World Almanac. They are taught the various uses of the dictionary and the card catalog. They learn from actual need the most common Dewey decimal numbers; they are taught how to use maps and globes; they learn the importance of using cross references in both the reference books and the card catalog. They develop the habit of searching in many places for the information they want; thus real habits of research are begun.

Daily association with books under the expert guidance of a librarian has made many children for the first time in their lives aware of authors and illustrators of books as real people. Children like to discuss their favorite books. They enjoy reading about favorite authors and illustrators in "Junior Book of Authors," or in some magazine or publisher's pamphlet. Formal book reports are never required but children may discuss informally books they have read.

Fond of Discussing Books

There are exhibits and displays of the works of favorite authors and illustrators. The children discuss and compare the work of different illustrators. These discussion periods are often the happiest time of the school day and they give the librarian real insight into individual personalities.

In addition to the periods in which classes are scheduled to the library, teachers are free to send individuals or small groups of children to the library at any time for special work. Since primary grades are not regularly scheduled in the library, books are circulated to the primary rooms for the library reading tables. Provision is made also for the free and constant circulation of books and other materials from the library to classrooms.

Some of the materials circulated to classrooms are used only during a class period, others, for a day or a week and some, for as long as the unit of work continues. In large schools all supplementary readers are also circulated through the school library. Thus the library serves as the center for all books and teaching materials in the school.

An annual library book budget is allotted to each school according to its enrollment. The annual budget for library books averages about \$1 per pupil. This budget includes new books, replacements, magazines and repairs. Each school makes its own selections of books. Library books are selected principally from the Sacramento graded book list for elementary school libraries. Because of the importance of book collection in the educational program, great care is given to selecting new titles. Child interests, varying reading levels, courses of study and balance among the subject fields are kept in mind. In addition to reference and sup-

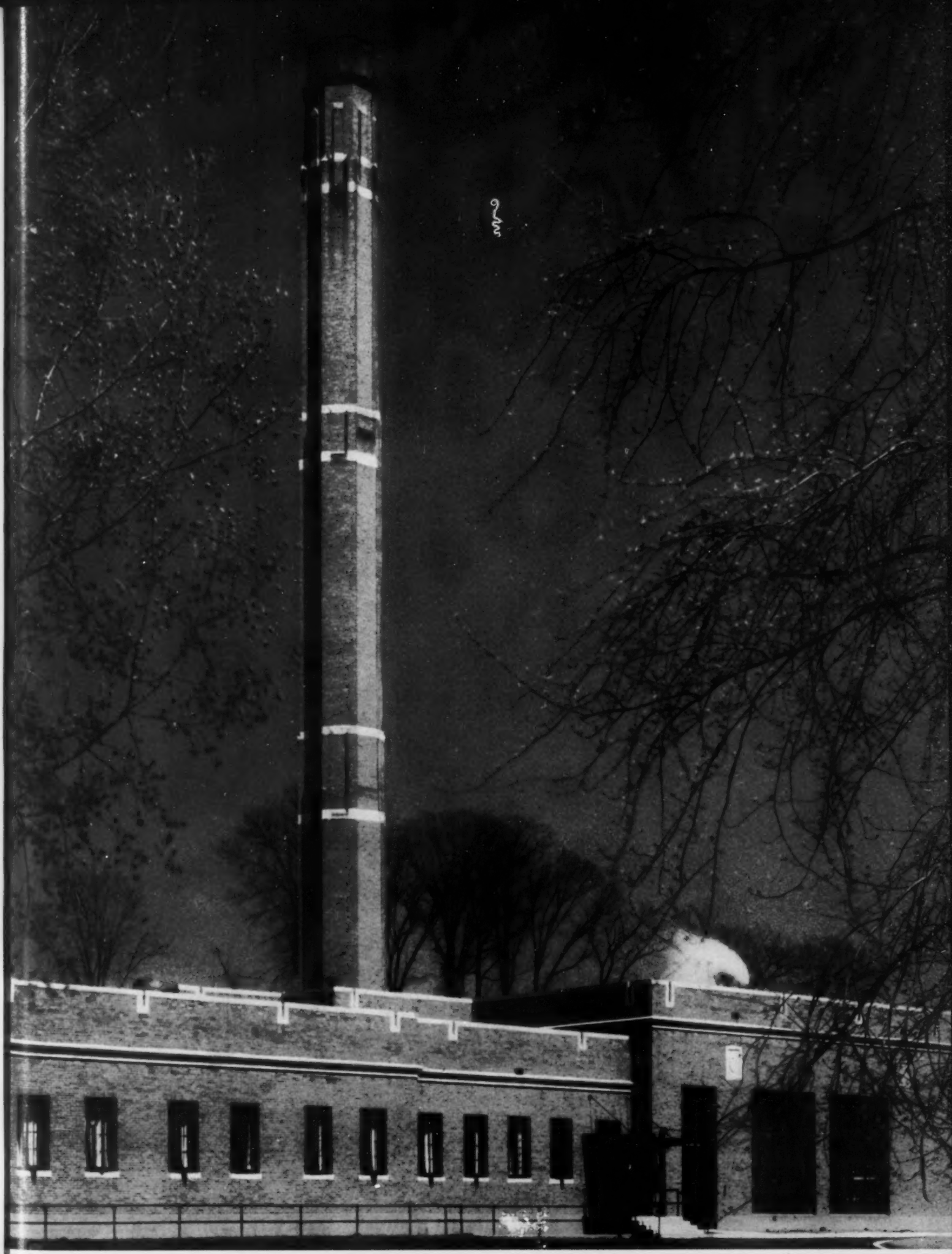
plementary books, each library has a fine collection of story books, the old familiar books that have been popular with children for years and the new, modern books that are so interesting to look at and to read. The books are ordered and cataloged centrally by the professional librarian. Processing of the books, which includes pasting of book pockets, stamping, lettering and shellacking, is done in the individual schools with the help of child library assistants.

It is impossible to measure the values of elementary school libraries in terms of the usual school subjects. They are essential as a means of providing materials and services necessary for the functioning of the modern educational program. They provide opportunity for children to become familiar with the use of books and libraries. They give real opportunity for purposeful reading. They help children to become more intelligent users of the public library. They give children the opportunity to become acquainted with books in an entirely new relationship, as a means of access into that vast world which is open only through reading.

Outwitting "Scalpers"

Benjamin Franklin Junior High School at Uniontown, Pa., has a printing shop where most of the forms and all of the tickets for school affairs are printed. The boys who printed the tickets frequently were tempted to present their friends with complimentary tickets for such events. Numbering the tickets did not help and punching them was of little avail because when the ticket taker was rushed he had little opportunity to check the design of the punch.

According to Dan R. Kovar, the high school principal, the problem was solved in the following way: The printing teacher cut a linoleum block of conventional design to be used for formal occasions and a seasonal design, for special affairs. These blocks were made into hand stamps and now all tickets are stamped in the office with one of these designs, a contrasting ink being used. The ticket taker can readily discern the stamp. In the last two years only two unstamped tickets have been turned in at the school office.



HEATING and VENTILATING

The Art of Heating

AT THE outset let it be understood that the terms "heating" and "ventilating" will be used as a unit; in general they are not separated, though the engineer has a dual problem on his hands and in certain sections of the country the heating element is minimized because of climatic conditions. But the newer art of air conditioning is calling for a distinctly new attitude toward the whole problem.

We shall assume that all those familiar with school work and the elements of hygiene are agreed that ventilation is required to produce healthful conditions in a schoolroom in which from 25 to 50 children are housed for five to six hours per day. But there are those who ask, and pertinently, too, what do you mean by ventilation? I do not profess to know enough about this term to have my definition accepted, so I shall avoid the issue by going to various authorities. Authorities agree that ventilation is necessary to produce healthful surroundings; they do not agree on what it should be or on the means to be used.

Probably authorities are in accord on the following points: (1) the necessity of providing air movement; (2) the prevention of drafts from such movement; (3) tempering of the air, either by heating or cooling, to produce comfort; (4) the need for and benefit of a certain amount of humidity, and (5) the need for the discharge of a certain amount of the air introduced into a schoolroom and its replacement with air from the outside. Please note the absence of the terms "foul" and "fresh" air.

Ranks Are Split Wide Open

If we go to the medical man, the sanitary expert or even to the investigations of the New York Ventilation Commission, we find no final agreement on the primary premise of what really institutes healthful surroundings, except in those general terms with which we are all familiar. But when it comes to quantitative determinants or specific factors, the ranks are split wide open.

Some want gentle breezes; others use a "high velocity jet." Some want 10 c.f.m. per pupil; others cannot get

along with less than 30, while one or two have it down to a point as fine as 17.5 and 23.5. There are the disciples of all fresh air and their opponents who can get along either with incidental infiltration or with 100 per cent recirculation, sometimes with washed, cleaned and ozonized air. Some must have provisions for 45 per cent relative humidity, while others prefer to let nature take care of the balancing and adjusting effects. One group introduces air at the rear of the room, while another feels that there is no place like the long side. Then there are the advocates of directional flow grilles and those who say just to shoot the air in from any wall or from the ceiling. Some prefer "skimmer" vents located either at the ceiling or at the floor line. In addition, there are a few patented or individual systems.

Each Installation Is Individual

So when we come to consider the various methods used to achieve whatever we feel necessary, we are not on safe ground so far as general agreement is concerned. This is as it should be, for each installation is a law unto itself and presents its own peculiar problems that need solution apart from other situations. So let us look about and see what the field has to offer. At this point it should be stated that opinions or comments on each system are those offered from time to time by both its proponents and opponents and do not necessarily correspond with my own views.

Window ventilation has been used from time immemorial. Then this system was rediscovered by the New York Commission on Ventilation and embellished with direct radiation, deflectors and large vent ducts. A modification has been used in the South, particularly, and "breeze" windows were and are used to get through drafts or air movement. The advantages and disadvantages of the system have been discussed so much since it was given a quasi-official status by the commission that it seems needless to go into them again. The American Medical Association

endorsed the system but the practical engineer and the school administrator seem doubtful.

Among the earlier and common systems was the furnace or hot air job; the gravity method of heat distribution is still fairly common in the small schoolhouse. Later a fan was used to force air through the ducts and there are still a few 8 and even 10 foot disk fans in operation. These were replaced later with blowers, or multivane fans, which were able to work against considerable static pressure induced by the necessary duct systems. The latter were of the trunk duct type, which then developed into the individual or separate duct system. These hot air jobs require either 100 per cent outside air or recirculate a portion of the air; when blowers are used, filters are installed to catch dust and dirt. The proportion of outside and recirculated air is still a big variable.

The "pros" say the system is effective, is reasonable in first cost and operation, will distribute air where needed in proper volumes, is a clean method because of filters and because humidity can be supplied and, finally, will always ventilate when heat is needed and even when heat is not required.

Objections to Hot Air System

The "cons," on the other hand, say that ducts are bound to be dirty in spite of filters, that the temperature is difficult to control, that the ducts, often large and numerous, take up valuable space (which costs money in terms of building construction), that repairs are costly and that heaters take up too much space. The system is not well adapted to large and extensive buildings and does not lend itself to additions or alterations. We also hear that long ducts lead to deionization of the air and thus reduce its healthful effects.

Then there are the steam plants of which there are a number, all of which are well recognized. Among the first was the direct radiation system in which every room was provided with radiators to compensate

and Ventilating

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for heat losses. In addition, some extra radiation was installed, which was set over or adjacent to a shielded opening leading outside. The theory was that outside air entering these openings was tempered or heated and thus provided ventilation. The proponents did not have much to say for the system except that it was cheap; they did admit that quantitative results were a trifle uncertain.

To make the job different, the radiation was installed at the base of metal or masonry flues open to the flow of outside air at one end and, thus, the gravity-indirect system was born. It did give a little shove to the tempered air because of stack heights but this was more than offset by the trouble with this indirect radiation because of inaccessibility of coils, air locks and freezing. This system is no longer used to any extent.

Hot Air Replaced by Steam

It was but a short step to replace the furnaces or "hot air generators" with steam boilers. These fed tempering coils, or indirect radiation, which were placed so as to heat or temper incoming air and distribute it by means of the identical duct system first mentioned. In other words, the furnaces were replaced by steam radiation.

This method of heat and air distribution, of course, required blowers because of the resistance offered by the heater coils. Filters were and are used to clean the air; in some instances air washers are installed and even ozonators and ultraviolet rays and ionizers are sometimes found. The system was divided into two groups, the split system and the all-blast type.

The split system compensates building heat losses by direct radiation in each room and furnishes tempered air only for ventilation purposes. The all-blast system does both by means of an air volume heated, usually, to a higher temperature and sometimes requiring larger air volumes than necessary for ventilating purposes. But, again, we are forced to

admit that quantitative standards do not exist. We may have anywhere from 30 to 75 per cent of direct radiation and rely upon varying amounts of air to ventilate and to compensate for heat losses.

Those who favor these systems assert that the boiler takes up a small amount of space, that with stokers fuel economy is obtained and even hand firing may be more economical than furnace operation. Repairs are less; indirects occupy only a small space; they may be strategically located; they are especially valuable in large structures; direct radiation may be placed where it will do the most good, and the system lends itself rather well to extensions and may be supplied with auxiliaries, making the job doubly effective.

The other side is not so sure of itself but it is said that the duct system occupies too much space, is dirty and does not lend itself well to extensions; that temperatures are frequently too high; that humidity provisions are not easily or effectively made unless air washers or special humidifying devices are used; that air velocities are likely to be too high, and that, in case of a split system, the blowers are too often shut down as an economy measure and ventilation is thus reduced to the vanishing point.

Unit Ventilator Is Recent Type

We now come to the most recent of the systems, the unit ventilator. This is, in effect, a modified split or blast system in which all devices except the prime generator are located in a single unit installed in each room and separate from all others. These units all draw in air directly from the outside by means of a blower; they filter the air and heat or temper it by means of a highly efficient or effective radiator and discharge it into the room through a grille in the top at varying and controllable velocities and volumes.

These units admit variable or fixed quantities of outside air and may or may not recirculate; they may also be provided with humidifying de-

vices. Like nearly all other systems, they are nearly always furnished with automatic control, though some have manual control as well. Some have some special features or operating characteristics. Like the other steam jobs, they may operate on the split theory or may dispense with auxiliary radiation entirely.

Do the "pros" or the "cons" have it now? Is this what the "cons" had in mind when they offered criticisms of the older steam jobs? Here are some of the arguments of the first group.

Claims for Steam System

The "obsolete" duct system is done away with; the radiator is more efficient than the cast iron or coil type; each room is a unit and independent of all others and can, therefore, be regulated to meet its own requirements, and the system is extremely flexible, lending itself to extensions and remodeling of buildings. It produces effective air movement and, because of fairly high plenum pressure in the room, promotes venting; it will also give any ratio of outside to recirculated air desired and maintain this ratio. The air is "fresher" as it has no ducts to travel. This system reduces the cost of a building as the vents may be small and the main duct system and the large flue walls are eliminated. In case of major changes or shifts, the salvage value is high.

But those on the other side also have arguments. They maintain that the units are expensive; they may be noisy; they are complex and are, therefore, likely to get out of order and in need of repair. They are said to discharge the air at a velocity too high for comfort and for proper filtering of the air. Their operating cost is comparatively high and they are frequently shut down to save and the provisions for humidity are inadequate. They do not operate well on a single pipe or gravity return but require a vacuum and condensate pump, thus adding to the operating expense and first cost of the system.

Plant Must Meet All Needs

DURING the last two decades much has been done to refine heating and ventilating equipment and to make it efficient. Certainly, it has been made less obvious in the rooms. Heat controls have been made more sensitive and air movement has become better controlled through improvement in fans, air ducts and diffusers. Humidity has been brought under better automatic control.

Instead of unsightly radiators hung along the walls or occupying valuable space around the rooms and corridors, recessed radiation is now provided containing copper fin or thin-wall cast iron radiators with the flush fronts of the recesses appearing more like a continuation of the room wall itself.

New Methods Are Significant

Perhaps the most significant changes in mechanical equipment have been made in the methods of handling the various types of fuel and in increased efficiency in control of combustion, reduction of smoke and soot, reduction of labor and in widening the types of fuel used.

While actual reductions in costs of heating have been effected in many cases, the administrator must remember that no large economies in total school operation expenditures can be expected from this source. Fuel costs, even in the colder parts of the country, constitute only a small part of total per capita cost. Usually fuel comes to approximately the same figure as free textbooks, less than \$2.50 per pupil.

Fuel costs fluctuate widely with actual weather conditions. They vary with temperature, humidity, precipitation, wind velocity and amount and type of insulation against heat transmission. They vary further with types of fuel, kinds of heating equipment, efficiency of equipment, personnel efficiency, length of firing period, exposure of building, degree of insulation in the structure, amount or recirculation.

Planning heating and ventilating equipment for a new building re-

quires a high degree of technical engineering information and a clear vision of educational requirements. The first is the job of the technical engineer. The second is the job of the school administrator. In developing the educational design in terms of functional needs, the administrator will plan the length of day, the length of periods, interchange of classes, amount of movement through corridors required, use of entrances and exits and other matters that affect the operation and demands upon the mechanical system. In addition to this information, it is necessary to know what the community demands may be in the way of freedom from smoke.

The selection of the type of fuel and the mechanical equipment will be affected largely by the foregoing demands. Selection will also be influenced largely by their local availability and their relative cost compared with other types. It is not always advisable or expedient to use the cheapest type of fuel or equipment. So the selection of fuel and equipment is a question that requires expert study by the engineer in terms of the educational and community need.

Obtain Competent Advice

Boards of education and school administrators should not give consideration to salesmen's claims for fuel and labor-saving devices without first receiving competent and disinterested engineering advice.

The first step in improving operation is cleanliness. An ill-kept, dirty boiler room is a direct indication that in almost every case the equipment is functioning badly. Make the boiler room shipshape. Clean up and paint up. There is just as much reason for painting the floor of a boiler room as for painting any other floor in the building. Some schools proudly show the boiler room as an index of school efficiency. Articles such as "Cleaning Up the Boiler Room"* in the April issue of *The NATION'S SCHOOLS* will explain in greater detail what needs to be done.

If the equipment is badly out of order, money can be saved by engaging a competent engineer to survey the whole plant. As a rule, such surveys are not expensive and the savings in fuel, labor and equipment are appreciable.

In the selection of firing equipment extreme care should be exercised to see that what is chosen is the best type for the job. Again, engineers will be of invaluable service, particularly if they have had wide experience in testing the efficiency of the kinds of equipment considered. Oil burners are now perfected to a high degree of efficiency but there are still many types that are not yet out of the experimental stage.

For most places coal is the cheapest, most easily available and, in general, the most satisfactory type of fuel. Oil or gas, however, may claim first consideration because of local supply or demands. The equipment for handling any of these fuels must be considered in terms of the boilers and the rest of the heating plant.

Hand firing can be the most efficient and economical way of handling coal, provided there is an expert fireman who knows just how to handle the boiler and the fuel. This condition seldom obtains, however. When boiler types permit, the stoker will usually do the job better, maintain an even bed of fuel, a steady supply of steam, produce less smoke outside, keep the boiler room cleaner and require less labor.

Cheap Fuel Uneconomical

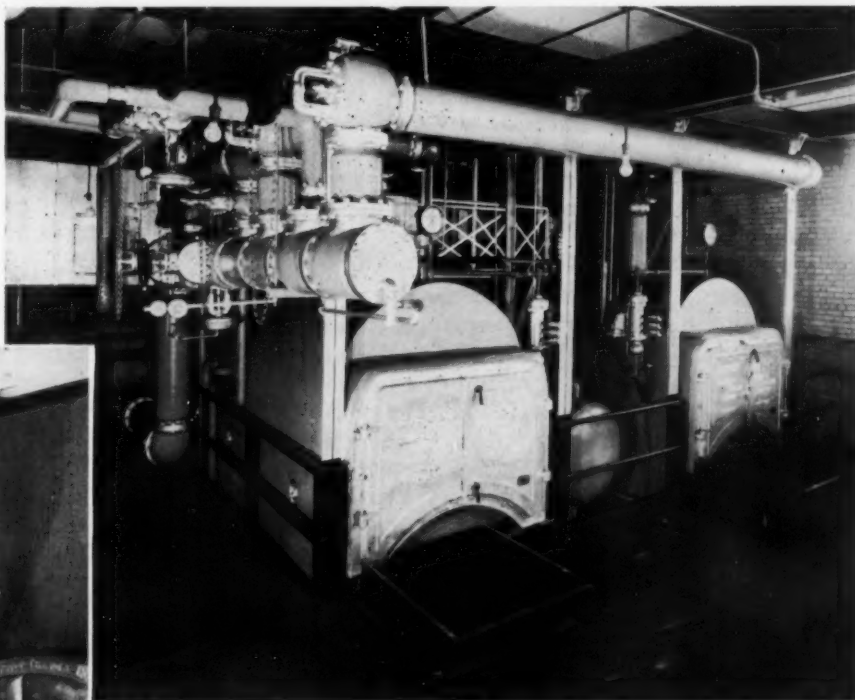
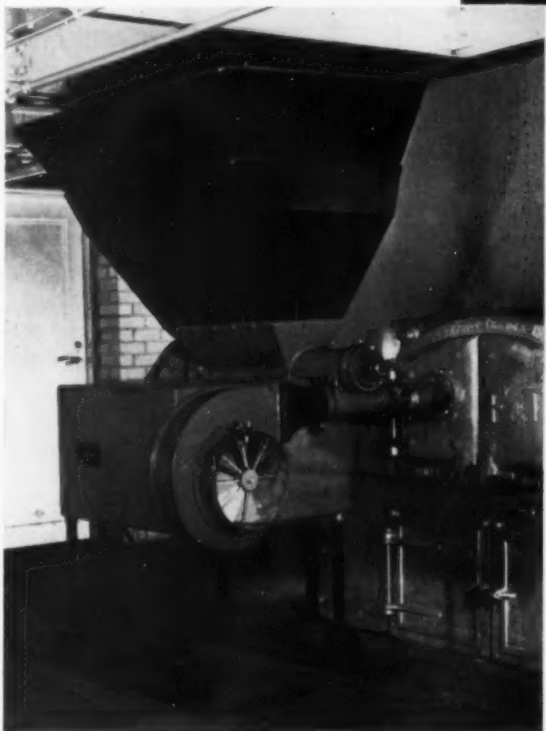
Stokers may be of the overfeed or underfeed type. The first type scatters the coal over the top of the bed as in hand firing, and the second type forces the fresh coal up from below. Both types require careful adjustment to meet local conditions as well as careful selection of fuel. Cheap fuel usually develops many other problems that are not economical in the net results to the system.

*Stevens, Clarence E.: *Cleaning Up the Boiler Room*, *The NATION'S SCHOOLS* 25:47 (April) 1940.

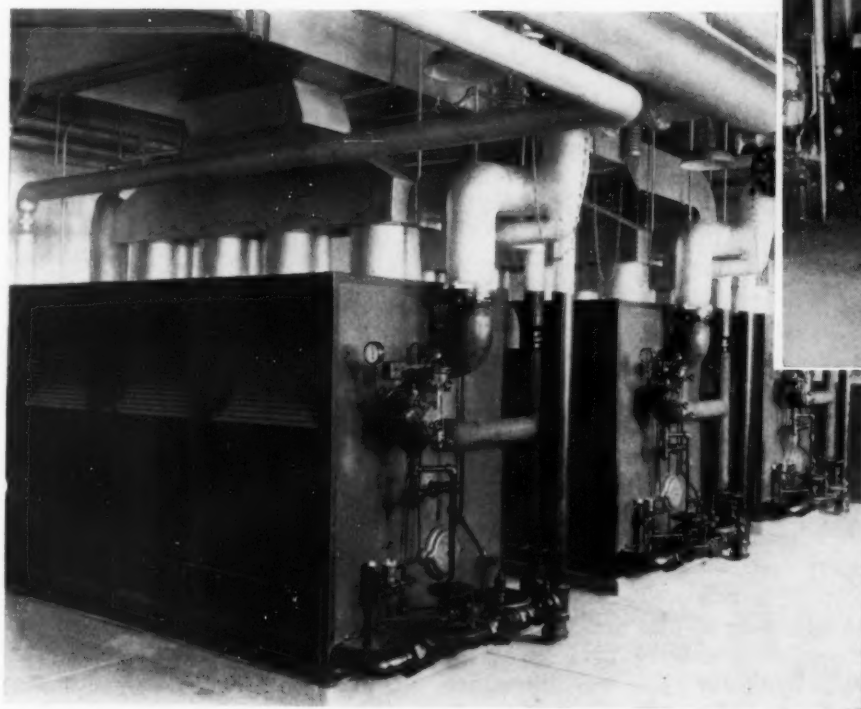
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Below: The stoker is placed below the boilers. This is an overfeed type. The coal is forced through the delivery pipe under air pressure. The stoker can be detached from the fire door and rolled back on the track giving free access to the grate area.



Above: A well-planned boiler layout. Note how the planning of steam pipes fits the general scheme and loading platform in foreground.



Above: A standard type of under-feed stoker operating with high efficiency in a large school plant. Left: Gas heating equipment in a large school building combines high efficiency with cleanliness.

For the Sake

THE fuel bill is the major factor in the cost of operating heating and ventilating systems of school buildings, and the magnitude of the fuel bill is greatly affected by (1) the construction of the building and its relation to the building heat losses and (2) the type of ventilating system and its schedule of operation.

Weatherstripping windows and doors is an important factor in reducing heat losses as is also the application of proper insulation on exposed walls and the top floor ceiling or roof.

The operating personnel, however, has little or no control over such heat losses since they are an inherent part of the building structure. On the other hand, considerable economy of operation can be obtained through proper operation of the ventilating system and by maintaining the various parts of the heating plant in good and efficient operating condition.

Let us consider an average school-room and analyze the savings that may be obtained by judicious operation of the ventilating system.

The minimum quantity of outside air to be brought in for ventilation is sometimes fixed by law. When this is not the case, the ventilation standards adopted by the American Society of Heating and Ventilating Engineers are usually used as a standard.

Preferred Temperatures

Areas	Degrees
Classrooms	68-70
Offices	68-70
Assembly Halls (when used)	68-70
Manual Training Rooms	65-68
Corridors	65-68
Gymnasium	60-65
Toilets	60-65
Swimming Pool	74-78
Bathroom	74-78
Open Air Room	60-64
Kindergarten	72-74

One of the best known state ventilating codes, based on A.S.H.V.E. standards, reads as follows: "The total primary air circulation for all occupancies in this classification shall not be less than 30 cubic feet per

minute per occupant, or 6 air changes per hour, the larger of these quantities to govern." This code qualifies the foregoing requirement by stating that: "The outside air supply during occupancy shall not be less than 10 cubic feet per minute per occupant." In other words, 30 cubic feet of air per minute per person must be supplied to a classroom, at least 10 cubic feet of which must come from the outside.

Following such a code, the heat requirements for an average classroom will be substantially as tabulated in the table that follows. The values given are based on average construction of walls and windows, an occupancy of 40 pupils, 30 c.f.m.

Relation of Heating to Ventilating Load Using Various Percentages of Outside Air

Percentage of Outside Air	A-100%	B-50%	C-33-1/3%	D-25%	E-0%
Heating Load, Btu. per hour	13,200	13,200	13,200	13,200	13,200
Ventilating Load, Btu. per hour	38,800	19,400	12,660	9,700	—
Total Load, Btu. per hour	52,000	32,600	25,866	22,900	13,200
Percentage of Saving	—	37 1/2	50	56	75

The foregoing table is based on standard classroom requirements only; does not include gymnasium, auditorium, activity or similar rooms but in which similar savings can be made by changes in designs or changes in methods of operation.

per pupil and an outside temperature of 40°F.

From column A of the table, it will be noted that the ventilating load is approximately three times the magnitude of the heating load when all air is taken from the outside and none is recirculated. On the other hand, column C shows that a saving of 50 per cent can be obtained by taking only one third of the primary air requirement from the outside and recirculating the other two thirds. This complies with A.S.H.V.E. standards and most of our revised state heating and ventilating codes.

Many school buildings have been built without having provisions made for recirculating a part of the air required for ventilation, and in many cases the construction is such that it is practically impossible to change them so that the economy of recirculation can be obtained. On the other hand, there are also many

school buildings in which such a change-over would be simple and inexpensive; the cost of this alteration would be paid for by the saving in the cost of operation in a comparatively short time.

It is true that there are ventilating codes still in existence that require 100 per cent outside air and allow no recirculation during school hours. Research has definitely shown that 100 per cent outside air is not necessary to produce healthful conditions, and such codes will no doubt soon be revised in the direction of more economical operation of the ventilating system.

Reference to the table reveals the importance of not running the venti-

lating system longer than is necessary. If the ventilating system is to be used for rapid warming up in the mornings, 100 per cent recirculation should be resorted to until classes begin. As soon as classes are in session, the ventilating system should be switched over, either automatically or manually, to its normal operating cycle, taking in the percentage of outside air required in the particular locality in which the school is located.

To save fuel and power, the ventilating system should be stopped as soon as class sessions are over.

The engineer-custodian in charge of the heating and ventilating plant should be responsible for the temperature regulation in the building and should do the usual maintenance work and adjustments needed on thermostats.

The temperatures indicated in the accompanying list should be main-

of Economy

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tained in different parts of the school building during the heating season, from 20 minutes before the opening of school sessions in the morning until the close of school sessions.

These temperatures are based on the maintenance of 40 per cent relative humidity throughout the building. If the relative humidity is lower than 40 per cent, the temperatures listed should be slightly increased. All unused rooms should have the thermostats set at about 50°F. Assembly halls and gymnasiums should not be heated on days when they are not to be used but in all such cases sufficient heat must be maintained to keep the temperature of the rooms above freezing.

Assembly halls and gymnasiums should have individual ventilating systems that can be shut down, independently of the rest of the buildings, on days when such rooms are not to be used.

All ventilating systems should be equipped with fresh air intake dampers and roof ventilator dampers which will close automatically or which can be closed with manually operated remote switches when the ventilating system is not in operation.

The fundamental rule of perfect smokeless combustion is a proper mixture of air and gases from coal in a furnace at a temperature well above the ignition point of the fuel. Anything that will prevent this condition will tend to cause smoke. The following rules are general and should be modified to suit the particular plant; they apply equally well to hand firing and to mechanical stokers.

1. Thickness of fire should depend on the draft and size of coal being fired. If the fire bed is too thin, too much air will pass through it, resulting in low furnace temperatures and high exit flue gas temperatures. If the fire bed is too thick, an insufficient quantity of air will pass through and incomplete combustion will result. The matter of thickness of fire is one that must be left to the judgment of the fireman, but improper

attention to this factor will lead to considerable loss of efficiency.

2. There should be no holes through the fire bed. If there are, the resistance of the fire bed is reduced at that point and large quantities of air will stream through into the combustion space, chilling it and causing smoke.

3. Fires should be kept clear of clinkers and ash. Coal thrown on top of large clinkers is shut off from the action of air so the gas distilled from this coal passes off without being burned. In order to keep the temperature of the combustion chamber high, clean one side of the grates at a time, keeping a brisk fire on the other side.

4. Theoretically, the finer and more nearly one size the coal is, the more perfect will be the combustion. The gases distilled from a large lump of coal can be mixed with the air around the outside of the gas stream only; the gases near the center portion of the stream pass out without being burned. Break up all large lumps to 2 inch size so the air can mix with the gases in burning.

5. In hand fired plants, fire lightly and often. If the coking method is not used, spread fresh coal evenly, filling all the holes and low spots. Fire alternate doors. If too large a quantity of fresh coal is thrown on a hot fire, gases are distilled so rapidly for a few minutes that air cannot be mixed with them and dense black smoke will result.

6. A boiler is a heat exchanger in which the heat in the gases of combustion is transferred to the water in the boiler as the gases pass through or around the tubes. Soot or ash acts as an insulation and, if allowed to accumulate, prevents the heat exchange desired; much of the heat developed in the furnace passes out the chimney as a complete loss.

All boilers are provided with flue cleanout openings through which the heating surface can be reached by means of brushes and scrapers. Flues of solid fuel boilers should be cleaned often to keep the surfaces free from soot or ash. The frequency of cleaning depends on the cleanliness of the fuel used and the draft available and, therefore, no set rule can be given.

Summer Care of Heating Boilers

(As Suggested by the 1940 A.S.H.V.E. Guide)

1. Clean all heating surfaces thoroughly of soot, ash and residue. Give heating surfaces of steel boilers a coating of lubricating oil on the fire side.
2. Coat all machined surfaces with oil or grease.
3. Clean connections to the chimney and, in case of small boilers, place the pipe in a dry place after cleaning.
4. If there is much moisture in the boiler room, drain the boiler* to prevent atmospheric condensation on the heating surfaces.
5. Clean the grates and ash pit.
6. Clean and repack the gauge glass, if necessary.
7. Remove any rust or other deposit from exposed surfaces by scraping with a wire brush or with sandpaper. After the boiler is thoroughly cleaned, apply a coat of preservative paint, when required, to external parts normally painted.
8. Inspect all accessories of the boiler carefully to see that they are in good working order. Oil all door hinges, damper bearings and regulator parts.

*Owing to the hazard of someone inadvertently building a fire in a dry boiler, however, it may be safer to keep the boiler filled with water. A hot water system usually is left filled to the expansion tank.

Firing Technics

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NO ONE factor influences the method to be used in firing a boiler more than the coal itself. Few of us give such extensive consideration and study to the various coals that we actually have at our finger tips the information desired concerning a particular coal.

The first consideration is the ultimate requirements for good combustion. Time, temperature, air and mixture are the requisites for good combustion and the sacrifice of any of these factors results in poor combustion. Ample time must be allowed for the completion of combustion; sufficient temperature must be evidenced throughout the combustion zone to maintain combustion; there must be a proper mixing of air and fuel throughout the zone, and there must be a sufficient supply of air to furnish oxygen.

Method Depends on Coal

The physical and chemical characteristics of the coal have an even greater influence on the equipment and operating needs. Some coals are free-burning and can be consumed while in a quiescent state, while other coals cake or coke when heated, impeding the passage of air through the fuel bed unless periodically agitated. Some coals have too high an ash content or an ash that fuses at too low a temperature, thus causing operating difficulties. Certain coals must be of a uniform size to burn properly and some burn better as run-of-mine or slack. Thus, the kind of stoker or method of hand firing must be selected with respect to the physical behavior of the coal and its ash during the combustion process.

The results of tests conducted at the Bituminous Coal Research, Inc., show that of the various characteristics of bituminous coals (size, volatile content, ash content, ash clinkering tendencies, caking and coking tendencies), the coking characteristics and clinkering tendencies are the

most important in determining the satisfactory performance of a coal.

Although practically all coals form generally coherent masses of coke, certain difficulties result if the coking is too strong. The principal difficulty is a low rate of burning and slow response to demands for heat, with possible extinction of the fire. Supplying a slight excess of air has been found favorable because it favors the maintenance of a strong burning zone. A thin fuel bed is more responsive when using the alternate method of firing, *i.e.* establishing an imaginary checkerboard on the grate and firing accordingly. By this method a fairly uniform bed can be maintained with the expectancy of a fairly high rate of combustion. This method necessitates frequent firing but offers little resistance to the air flow, as the thin layers soon disintegrate. It is by far the best method to use, since proper air supply and control are most readily achieved. All things being equal, it gives a clear approach to the essentials of proper combustion.

The coking-firing method is particularly suitable to coking and caking coals but does limit the rate of combustion. In this method, the green coal is fired on the front of the grate and is allowed to coke, the volatile gases distilling off and passing over the hot live coals. After the distillation process is completed, the coke is spread over the rest of the fuel bed. This method does not require as much attention or as frequent firing, but it limits the combustion rate, since the time element is greatly increased.

Spread firing, where a small amount of fuel is distributed evenly over the entire fuel bed, is the universal method for firing low volatile noncoking bituminous coals. This method is also used for semianthracite and anthracite coals.

Experience shows that coals with ash softening temperatures in the

range of 2200° to 2500° F. are well suited to the small clinkering stokers. It has been found at Iowa State College that the Iowa coals having ash contents of 15 per cent and more and with ash softening temperatures of 2000° F. and less can be used on the small stokers. Coals with ash fusion temperatures as high as 2700° F. also can be used but with difficulties in mild weather.

Close sizing of coal gives a much better performance and higher efficiencies in both hand firing and stoker firing. A more uniform fuel bed is produced with less excess air and the coal is cleaner and easier to handle.

The thermal efficiency of a stoker-boiler or stoker-furnace combination is of less importance than the degree of attention-free and trouble-free operation but calculations of heat cost for comparative purposes depend on this factor. No general statements of efficiency are of great value, since the overall efficiency is as much a function of the boiler or furnace as it is of the method of firing.

Efficiency of Stokers

The Stoker Manufacturers' Association suggests the value of 65 per cent for stokers burning less than 100 pounds of coal per hour and 70 per cent for those larger. Yancey reported overall efficiencies of 64 to 77 per cent for a hot water boiler fired with an overfeed stoker, for both continuous and intermittent operation when burning weakly coking coals suitable to the type of stoker. Cleghorn obtained efficiencies of 50 to 67 per cent with an underfeed stoker and a steam boiler; variations were caused by the type and rate of operation and the type of coal. Sherman and Cross give 55 per cent as a normally expected efficiency (results of field tests conducted on underfeed stokers in a hot water and a steam boiler and a warm-air furnace).

The factors governing the efficiency obtained are: excess air and effectiveness of heat absorption in the heat transfer surfaces. If the heat absorbing surfaces are not sufficient for the rate of heat liberation, the stack temperature will be high and efficiency, low, even when a low ex-

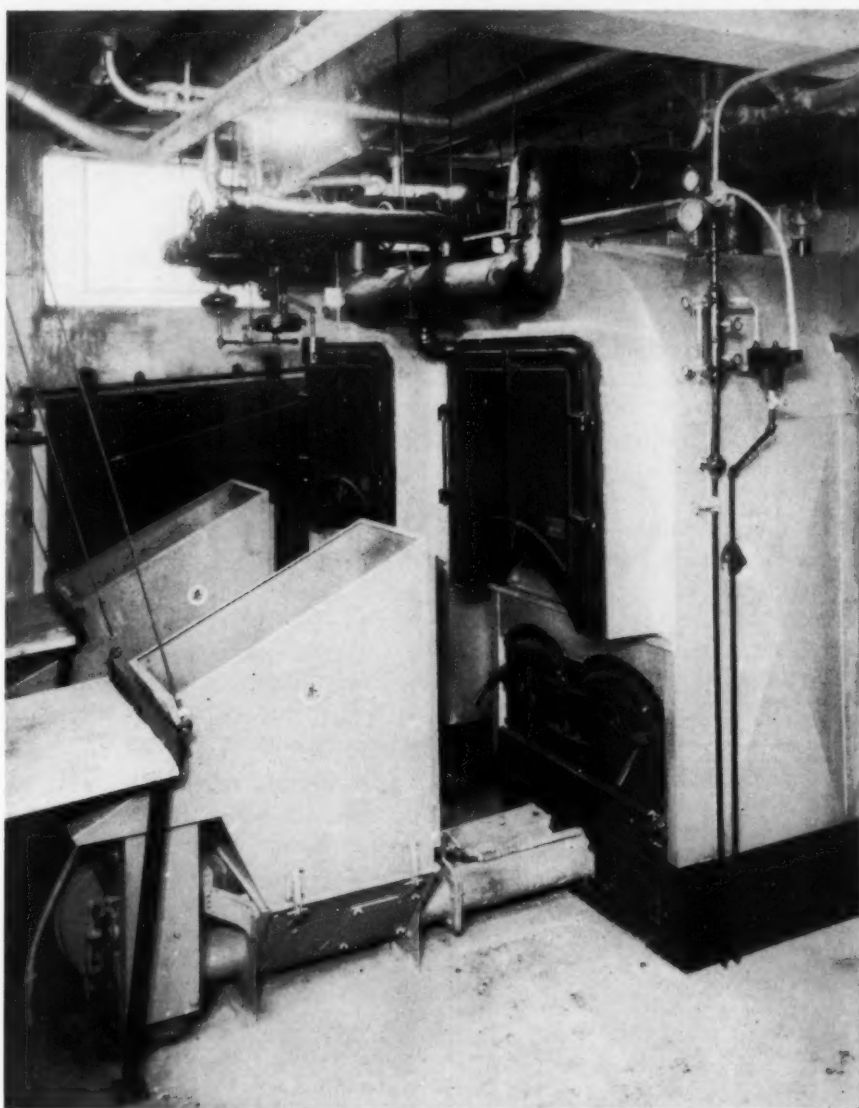
cess air is maintained. On the other hand, increasing the air supply excessively results in low efficiencies. The loss that is due to combustible in ash is negligible with the clinking type of stoker and losses that are due to unburned gaseous combustible in the flue gases are no greater. With proper coordination between heat absorbing surfaces and heat-liberation rates and with an excess of air during operating periods of 50 to 60 per cent (or 10 to 11 per cent CO_2), efficiencies of 65 to 70 per cent can be expected.

For best results with anthracite, carry a deep fire bed. In mild weather, check the fire with ashes accumulated on the grate. In cold weather, shake down the ashes more often to give a deeper live fire. Shake the grates only sufficiently to remove the ashes, stopping before live coals fall into the ash pit. Keep the pit free of ashes and the flues and passes free of soot.

When firing, always have some live coal exposed to ignite the volatile gases as they distill off. Learn to control the fire with the dampers. Never leave the feed door open to check the fire, for it is wasteful.

With bituminous a uniform sized coal is easier to handle because the drafts are easier to manage. Furthermore, the volatile gases are distilled off more rapidly, for slack and run-of-mine require a more rapid delivery of air to the furnace to avoid needless losses in escaping volatile gases. Low volatile coals seldom produce much smoke regardless of the firing method. In high volatile coals the smoke formation and resulting loss can be reduced by pushing the live coals to one side and putting fresh coal in the hole formed. This ensures slow combustion and increases the combustion of the volatile gases in the presence of the high temperature live coal.

In mild weather, allow considerable ash to accumulate on the grates and carry a fuel bed of from 5 to 8 inches in thickness. In cold weather, shake down the ash more often and carry a from 10 to 12 inch fuel bed, provided ample time and temperature are allowed for burning the volatile gases. Otherwise, carry a from 5 to 8 inch fuel bed and fire



Boilers and stokers installed in the new Washington School, Davenport, Iowa.

oftener. The routine of controlling the dampers should be the same for any coal and can be mastered only through experience with the particular coal being used.

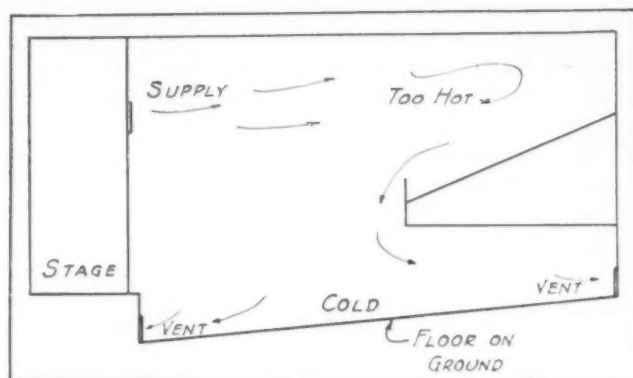
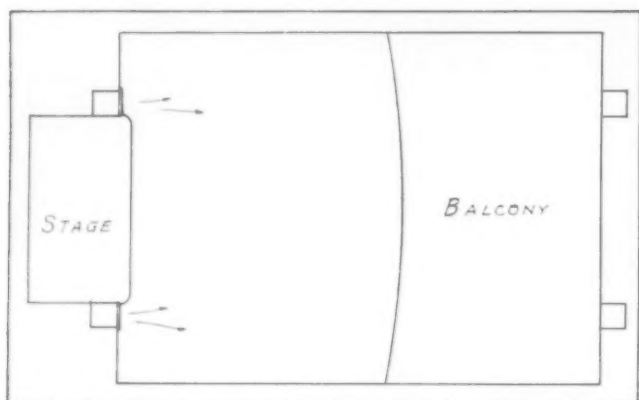
No part of the plant is more important from an operating standpoint than the boiler room. Efficiency can be built into the design of other operating equipment but in the boiler room this is only partly true. Apparatus can be installed to give 80 per cent combined efficiency for steam boilers, but with ineffective handling that same equipment will operate at only 50 to 60 per cent efficiency.

One of the most important items for good operating results is the physical condition of the equipment. It is true that efficiencies obtained from new equipment may never again be reached and most surely

never approached if the equipment is not kept in good order.

It is well, therefore, that each man take an inventory, using as a guide a monthly inspection of the equipment for which he is responsible. By so doing, a picture of the condition of the apparatus is always before him and repairs can be made while they are of a minor nature.

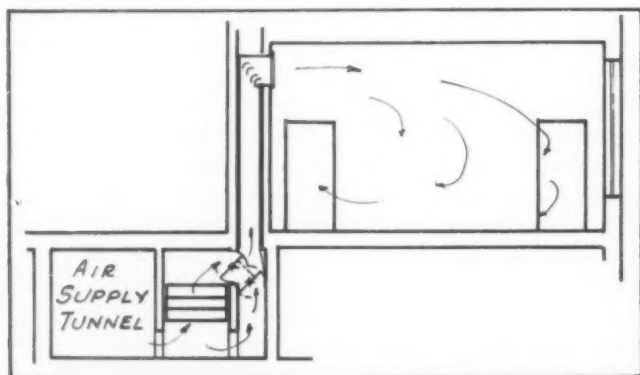
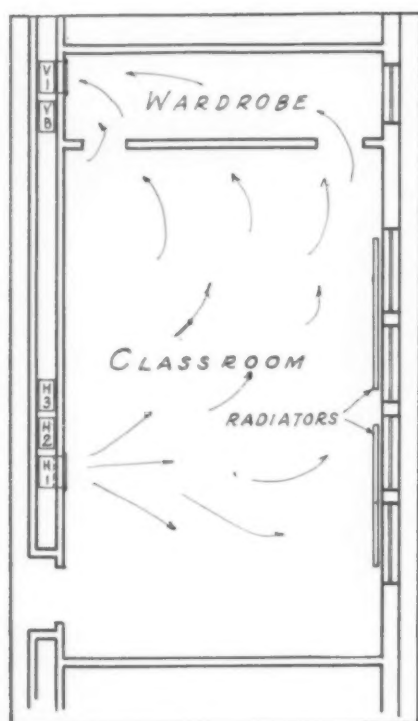
Successful and efficient boiler room operation requires a great deal of personal observation and an equal amount of common sense. The mere desire for a high CO_2 , a clean ash and a low stack temperature will not produce those results. Blame the coal only after the equipment and controlling are checked. "Clean and tight" control at least 90 per cent of poor boiler room operation. They contrast new equipment with old.



The Question of Heating Costs

SAMUEL R. LEWIS

Consulting Engineer, Chicago



THERE are two general methods of heating school buildings: by warmed air, which has been treated before being introduced into the rooms, and by local heat transmitters, such as radiators or fan equipped, room located convectors. The first type is called an all-blast system and the air may be heated by steam, hot water or by direct-fired furnaces. The second type, presupposing that mechanical ventilation is supplied, is called a split system.

With the all-blast system each classroom has a separate air supply duct, which is equipped with interlocked mixing dampers at its inlet end. As one damper, which receives air warmer than that desired in the room, closes, the other damper opens and receives air a very few degrees cooler than that desired in the room. Thus, under control of a thermostat in each room, air at constant volume

and varying temperature is delivered. With such a scheme serving many rooms, a large proportion of the heating power that has heated one room becomes available to heat the remaining too cool rooms as soon as the mixing damper ceases to call for warm air.

The split system usually has in each room enough direct radiation to heat the room, while the air for ventilating purposes is delivered through a trunk duct at the same temperature to all rooms. This supply of air may be warmer than that desired while heating the rooms prior to arrival of the pupils but must usually be slightly cooler than that desired after the rooms are occupied. The heat supply to the radiators in each room is turned on or off as may be necessary to maintain the desired temperature. With this scheme the heating equipment for the room that has been fully heated cannot aid in heating other rooms.

A modification of the split system employs fan equipped convectors called "ventilating units" in each room, generally in connection with auxiliary direct radiators. These ventilating units take air directly from the outdoors, usually through special openings in the outside walls under some of the windows.

With the split system there are heat transmitters below most of the

Left: Above, floor plan of classroom having all-blast type of ventilation. Below, cross section of the same room showing the air circulation.

Extreme Left: An auditorium floor plan, showing air supply vents. Left: Cross section of the same room, showing air currents.

windows and the warm air rising from them tends to counteract the cool down drafts that are noticeable near all windows in chilly weather. Radiators under the windows tend to overheat the pupils in the outer row of fixed seats and shields have been found desirable for protection.

The most enlightened research seems to indicate that the 30 cubic feet per minute per pupil apparently needed for ventilating should not all be new air taken from out of doors but that conditions will be improved if about 20 of the 30 cubic feet is recirculated. The part recirculated, of course, is constantly being diluted by the 10 cubic feet per minute per pupil taken from out of doors.

If an air movement through a standard classroom of less than 30 cubic feet per minute is maintained, the temperature of the entering air necessary to remove the surplus heat from the bodies of the pupils will be enough cooler than the ambient air to cause drafts. If fewer than about 10 cubic feet per minute of new air is introduced, there will be objectionable odors. If more than 10 cubic feet of outside air is employed, the cost of heating will be unnecessarily high. It is economical and helpful to recirculate all the air when heating a building prior to occupancy.

There are many modifications in detail of methods of delivering the air into classrooms but the generally accepted scheme for central ventilating systems is to employ inlets high up in an inner wall, spraying the air through diffusing vanes toward the windows.

With unit ventilating machines, usually the tops of the machines are at window stool level and the air is delivered through the covers at an upward angle toward the center of the ceiling. The air usually escapes through grilles in the inner walls near the floor in cloak rooms or wardrobes open to the rooms. The escaping air always should be conducted in fireproof vent flues. These may join trunk ducts in the attic leading to towers or ventilator heads and to return air shafts which can

convey the part of the air that is to be recirculated back to the heating apparatus. When unit ventilating machines located in the room are used, the recirculated proportion of the air may return directly to the machine near the floor line. It is desirable that every vent flue have an automatic damper with narrow, lightweight, horizontal blades; these will prevent reverse currents when the fans are not running. Without such dampers cool air from the attic trunk ducts tends to travel back into the rooms, especially to those in the lower stories.

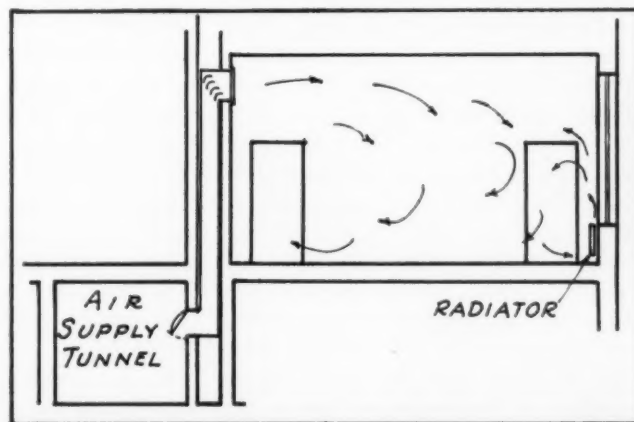
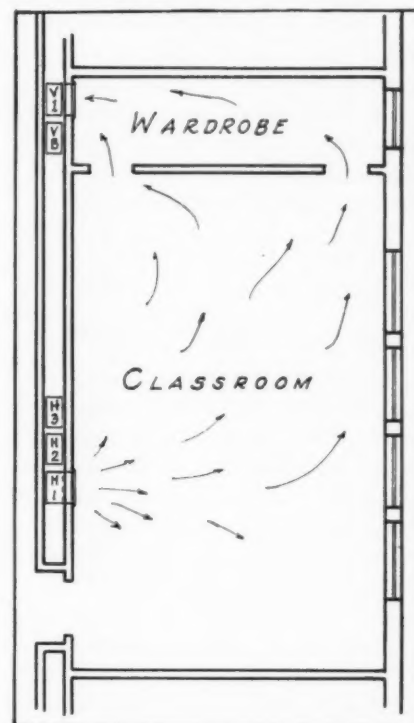
The method of transferring the heat from the fuel to the air in schoolhouses is almost universally through the medium of steam. When cold outside air is forced against steam heated convectors the rate of heat transference is exceedingly rapid and, especially with unit ventilating machines, it is desirable to employ a vacuum pump to accelerate the return of condensate and the removal of the entrained air.

There is no particularly significant difference in the initial cost between all-blast and split heating systems for school buildings. The larger the building usually the less the cost per cubic foot of space enclosed. Thus the cost per cubic foot for the heating system of a school of 4,000,000 cubic feet was 2.90 cents, not far from 10 per cent of the total cost of the building, while the heating system cost per cubic foot for another school of the same general type built the same year but having only 500,000 cubic feet was 5.76 cents, or about 17 per cent of the total cost of the building.

The pounds of coal burned per cubic foot per season over several

years for the larger building was 0.43, while that for the smaller building was 0.60. The larger building is a high school, with some usage at night, while the smaller building is a grade school. Some other grade schools in the same city, heated in the same way as the 500,000 cubic foot building but having three times as many cubic feet, burned in the same year as little as 0.31 pound of coal per cubic foot.

A study of fuel consumption in 100 schools in each of two large cities discloses no outstanding differences in economy between split systems and all-blast systems using the same type of combustion apparatus. The differences that appear seem to depend upon individual differences in the quality of the engineer-custodians more than upon whether or not the rooms have radiators.



Right: Above, floor plan of classroom having the split system. Below, cross section of the same classroom, showing the air currents.

Safety in the Boiler Room

FRANCIS R. SCHERER

Superintendent of School Buildings, Rochester, N. Y.

IN BUILDING the new school plant or in improving the old one, safeguards against fire, explosion and operating accidents attendant upon the heating and ventilating equipment come in for special consideration. The safest practice but, unfortunately, one that can be economically applied only in the larger schools, is to build a separate boiler plant a reasonable distance from the school building. Such provisions make necessary a full-time operator in the boiler plant and an underground passageway connecting the boiler plant with the school.

The next best arrangement is the one most frequently used today in the larger school systems. It consists of designing the boiler room as a separate wing or section of the building, entirely cut off from the main building by fire walls and having access openings protected by fire doors. The roof of the boiler room is open to the sky as there is no occupancy over the boiler room.

Trend Toward Modernization

There is a growing feeling that some of our school buildings, while not up to present day standards, might better be altered than scrapped altogether. This feeling will increase in many school districts as federal aid for new construction is either withheld or materially curtailed. Frequently, existing school properties can be improved at a reasonable cost so as to afford both up-to-date instructional facilities and building appointments conducive to health and safety. In the latter category may well be placed the modernization of the heating and ventilating equipment.

In Rochester, N. Y., the heating and ventilating plants in four buildings have recently been modernized, beginning with the abandonment of the boiler plant under existing classrooms or corridors and the erection of a new heating plant as an attached addition. The construction was handled by the work relief agencies. Two other plants are

scheduled for similar modernization in the immediate future.

In laying out the boiler room, provision should be made for two means of egress; a protective railing should be placed around the top of the boiler setting; a platform should be erected for access to valves, and metal stairs should lead from the boiler room floor to the top of the setting. Boilers should be located in the room so that the firemen cannot be trapped at the rear or on top of them.

While some school boiler plants are designed for high pressure so as to meet the needs of fan engines, vacuum and boiler feed pumps, school cafeterias and school laundries, many school plant administrators prefer low pressure boilers. The present day trend is to install them when factors make it possible.

Perhaps there is nothing that adds more to the safety of the boilers than a periodic internal and external inspection by a competent boiler inspector. This inspection is best obtained by insuring each boiler with a carrier recognized for the quality of its inspection service. In addition to this inspection service, the school district will be financially protected and will receive considerable benefit from the advice of the boiler inspector with respect to operation and to care of the plant so as to extend serviceability and longevity.

While the design of the boiler and its equipment is to a large extent governed by codes, plant operation will be improved and safeguarded by the adoption of such relatively low priced additional features as the following:

1. High and low water alarms.
2. Safety valves, equipped with a permanent rod or cable for periodic tripping and checking.
3. Blow-down valves for boilers and water columns, accessible from the floor.
4. An extension chain on tri-cocks and gauge-glass valves of

water columns, so that these may be operated from the floor.

5. Automatic controls of stokers and oil burners, so arranged as to shut down the equipment at predetermined low water levels.

6. A damper regulator, arranged so as to be closed at predetermined steam pressure.

7. A bell or other signal device, arranged to sound a warning when the automatic equipment ceases to function.

When coal is used for fuel, storage facilities should be provided in noncombustible bins or bunkers. Unless an overhead bunker is used, the best practice is to build a coal bin or bunker adjacent to the boiler room wall. When it is desired to store a large supply of bituminous coal, it is well to separate this storage space into compartments by means of masonry walls, each compartment, limited to approximately 50 tons, opening into the boiler room and separated therefrom by means of steel plate doors.

Placing of Equipment

Such equipment as ventilating fans, pumps, hot water heaters and pneumatic systems should be placed insofar as is possible in an equipment room that is reasonably free from coal dust and ashes. Care should be taken in locating this equipment so as to provide ample accessibility for proper maintenance. Fly wheels, belts and gears, which might engage the person or the clothing of the operator, should be fully guarded.

The ducts and the flues in connection with the heating and ventilating system require extraordinary attention since they constitute a problem in cleanliness and may make for the rapid transmission of fire and smoke throughout the building. This means that the materials of construction and the automatic cut-off devices are important factors in fire prevention.

Locating the Boiler Plant

EDWARD W. THODE

Architect, York & Sawyer, New York City

IN DEVELOPING the plan for a school building one of the units to be considered is the boiler plant. From the architect's standpoint, the following points should be considered: (1) appearance, (2) economy, (3) convenience, (4) flexibility and (5) safety.

If the institution is made up of several buildings, the question of appearance is of more importance than in the unit type of school. Boilers are most frequently housed in a separate building on a low point of the grounds, to permit the use of gravity returns. As the main buildings are usually three and four stories high and as the boiler house is a low building on low ground, a tall chimney is required. This chimney is bound to be conspicuous because of its height and may stand out so that it dominates the entire group of buildings. Usually funds are not available for giving the chimney an adequate architectural treatment and frequently it develops into an eyesore not only to the school but to the entire community.

Inconspicuously Located

Therefore, an effort should be made not only to design the boiler house and the chimney properly but to place them, if possible, on the most inconspicuous part of the property. It may be even worth while to abandon the use of the lowest part of the grounds and gravity returns to take advantage of an inconspicuous location, possibly on the side of the property away from the important streets or in a spot shielded by trees or other building. They should also be located so as to be inconspicuous from those parts of the interior of the building that house large numbers of pupils and faculty.

In the one building school the location of the stack is naturally controlled by the boiler room, it being desirable to eliminate long horizontal runs in the breeching from the boilers to the stack. With proper study it is possible to locate the flue so that it may be incorporated in the

To find an ideal location for the boiler plant is practically impossible. One consideration must be weighed against another so that building occupants will be comfortable and supplied with hot water without being conscious of the running machinery

architectural design, for no matter where it is placed it must be high and will be conspicuous.

A central location at a low level is usually desirable to shorten the runs of pipes and to permit the use of gravity returns. However, attention should be given to the fact that many other units of the school also require central location and the claims of the boiler room to this desirable spot should be carefully weighed.

The low level also is a point to be considered. Usually the boiler room requires considerable head room and the "low level" requirement places it well below grade. This frequently requires a deep excavation, which is particularly uneconomical if rock or bad water conditions are encountered. The great first cost of an expensive rock excavation or waterproofing job may easily offset the future economies of the low location.

When it comes to convenience, two factors are to be considered: easy access to the street or adjacent roads and easy access to all points in the building or buildings. Too often buildings are planned so that it is difficult to bring fuel to the boiler plant or to remove ashes. Sometimes it is necessary to provide and to maintain at considerable ex-

pense a long service road solely for this use. In one school near a railroad siding, had a little thought been given to the matter, the coal cars could have been brought up to the boiler house. As it is, it is necessary to load the coal into trucks to haul it a few hundred feet.

Too often when replacements are required it is found impossible to get bulky apparatus up to the building and even into the building itself. A large window or areaway placed at the correct spot may save its cost many times over when replacements are needed.

As the engine room crew usually does maintenance work throughout the building, easy access to the interior is essential, with shops conveniently located both for engine room and other maintenance work.

Provision for Expansion

In considering flexibility we must consider the probable growth of the institution and expansions resulting from changes in the curriculum. It is a difficult problem to know just how to provide for expansion. Some boiler rooms in old buildings would seem to be the only area liberally planned. Investigation has shown, however, that this apparent waste space was left for future apparatus that was never installed.

The ideal condition is to provide space for present needs in a location that will permit additions to be made to the building as space is required for expansion. Or it is even better to allot some space adjacent to the boiler room to a department of the school that may readily be moved, so that when expansion is required the space will be available for boiler room needs. Bear in mind there is probably no part of a school building more difficult or expensive to move than the boiler plant.

From the standpoints of safety, health and quiet the separate building is ideal. However, the location of the plant in the school need not

be particularly hazardous. Certainly, no precaution should be neglected that will eliminate dangers of explosion, particularly from oil or gas burners.

If all the necessary safeguards are provided, the location of the boiler room is secondary. However, the location of the flue is important. It should be placed so that prevailing

winds will carry the gases away from the building and it should be of such height that combustion will be of the best. An improperly located flue will bring gas and dirt into the building and will develop unhealthful conditions.

The noise factor must also be considered. Nothing can be more disturbing than frequent deliveries of

coal or ash removal near classroom windows. The use of oil as a fuel has helped to remove this complaint but, as many institutions still necessarily use coal, it cannot be disregarded. To handle coal and ashes noiselessly is an impossibility, but if the deliveries and removal can be made in a secluded location, the disturbance will be reduced.

Temperature Control

IRA H. DAVEY

Architect, Englewood, N. J.

THERE are two major objectives in the use of temperature control: (1) increased comfort for the occupants of the building and (2) increased economy in the operation of the heating plant. A school building must have the comfort of its occupants as the more important consideration, with economy of operation a close second.

With comfort as a main objective, any increase in comfort and corresponding decrease in sickness must be considered as having economic value. Actual tests have shown that changes in temperature affect the efficiency of works to a marked degree. The report of the New York State Commission on Ventilation showed that an increase of room temperature from 68° F. to 75° F. caused a decrease of 15 per cent in the physical work performed by men who were not compelled to maximum effort but were stimulated by a cash bonus. This commission also reports 75 per cent more absence resulting from colds and other respiratory diseases among a large group of school children in overheated rooms than among a similar group in rooms maintained between 66° F. and 67° F. As long as temperatures are controlled by hand, there will be uneven temperatures.

Overheating not only is poor economy in its effect on the health of the pupils but also is expensive. Overheating and the opening of windows may waste as much as two shovels of coal in every five used.

Thermostatic control makes for even distribution of steam throughout the buildings and a resultant savings in fuel

The fact that proper temperature control actually saves money is not just a statement made by manufacturers to sell the idea; exhaustive tests have proved their claims.

Two buildings of equal size and comparable exposures on the campus of the University of Illinois were tested recently by the head of the department of mechanical engineering. These tests proved that the building with thermostatic control showed a 56 per cent saving of steam. These buildings were similar in construction and used by the same number of students.

Temperature control makes for an even distribution of steam throughout the building and, therefore, a corresponding saving in fuel. The saving in fuel alone in a building with a good thermostatic control system will often pay for itself in from three to five years.

The efficiency of a temperature control system depends upon the sensitivity of the apparatus. This means the amount of time it takes for the mechanism to indicate a change in temperature. If a system requires a change of several degrees before the apparatus functions, the correspond-

ing saving in steam or fuel will not be as great as it would be if the system functioned with a slight change. The latest developments made by the leading manufacturers have been along the lines of more rapid response to changes.

There are two types of thermostatic control in common use: the pneumatic type, which requires a system of distribution line for compressed air from thermostats to control valves, and the electric current type. Each has its good features. The choice lies with the user and both should be thoroughly investigated before selection. The type of room thermostat is also different with each manufacturer and here again each has its own features.

School buildings have a wide selection of methods that can be used. Zoned control may be had; this will control sections of the building, such as a side facing the sun as against the side away from the sun. Control may be regulated by time or may be set for various hours of the day or variation of weather (outside-inside thermostats). Room control, which regulates individual radiators and unit ventilators, while originally more expensive, is accurate and is most economical in the long run.

The best feature of temperature control is its flexibility in that there is a type for every building, no matter how old. New buildings are not the only ones that can enjoy its benefits. However, every building presents its own problems but they can be solved. If the building is costing too much to heat or the pupils are not as alert as they should be temperature control may be the solution.

Wausau Saves \$11,758

FRANK KLUEVER

Chief Engineer, Wausau Public Schools, Wausau, Wis.

THE experience of the Wausau school board, Wausau, Wis., in effecting a saving of \$9000 a year in fuel consumption should be of interest to school officials everywhere, particularly in those northern states where the "climate bill" is an important item.

The Wausau Central School, a combination grade and high school, is located in the downtown section of the city. It is the community's oldest school. The main section was erected twenty-two years ago. With the rapid growth of the city, additions were built at two different times.

The original building and the first addition were heated by six warm air furnaces. When the capacity of the building was increased for the second time in 1925, the six old furnaces were replaced by 14 new warm air furnaces. These were equipped with blowers.

Experience, both with the old furnaces and with the 14 units subsequently installed, illustrates the fundamental contrast with respect to maintenance problems between the exterior of a building and the interior mechanical equipment. Exteriors can be successfully renovated, patched

and repaired. Mechanical equipment, on the other hand, eventually approaches the point at which any further attempts to repair are not only unsatisfactory but extremely costly.

The heating equipment for the Central School reached this point in 1936. Repairs and replacements of grates, fire box linings, arches, fronts and other equipment were costing an average of \$1000 a year. Fuel costs were inordinately high. It was costing more than \$12,000 a year to heat the building, which contains 73 schoolrooms, 6 toilet rooms, swimming pool, gymnasium and an auditorium seating 1750 people.

Despite the high fuel costs, heating was inadequate. There were frequent

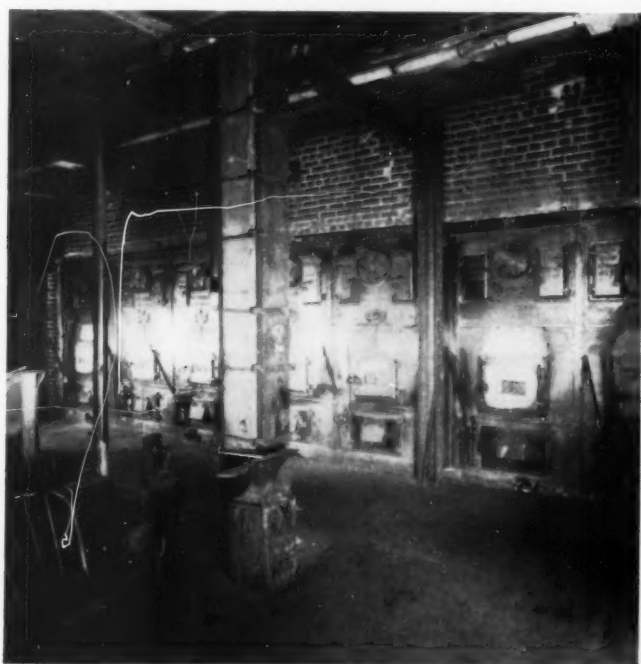
complaints from teachers. During extremely cold weather children had to be shifted from one room to another or sent home because it was impossible to obtain a temperature of more than 54° F. in rooms on the north and west sides. It is not exaggerating to say that icicles formed on the windows near the swimming pool.

Because of the consistent difficulty in heating the superintendent's offices, it became necessary to install gas-steam radiators in these rooms. The operation of this equipment added another \$200 to the fuel bill.

Not only was the heating inadequate but other defects were apparent. In an attempt to supply suffi-

Contrast Between the Old and New Plants That Netted a Yearly Saving of \$11,758

	Annual Cost of Fuel	Annual Cost of Repairs	Annual Cost of Supple- mentary Heating	Annual Cost of Electricity	Annual Cost of Redecorating
Warm Air System.....	\$12,000	\$1000	\$ 200	\$2421.95	\$1000
Two Pipe Steam System..	3,000	—	—	1663.65	200



BEFORE: Central School furnace room before modernizing.



AFTER: Boiler room of Central School after modernizing.

cient heat, heavy firing during cold weather was necessary. The resulting high temperatures in the fire box caused rapid deterioration of the flue linings which, in turn, permitted the escape of gases and fire dust into the ducts and thence into the rooms. This was a most unsatisfactory condition, which not only was detrimental to the health of the pupils but also involved considerable expense for re-decorating, to say nothing of the additional janitor service required for cleaning.

The fact that it would be necessary completely to replace the heating plant became apparent during a cold week end in January 1936. Thirty-three tons of coal were delivered on

Saturday afternoon. By Monday morning every ounce had been burned.

Despite the fact that more than \$300 worth of coal was burned in less than two days, the building was so poorly heated that two water pipes in a laboratory were frozen. The temperature during these two days was 32° below, which is not unusual for Wausau.

The attention of the school board was directed to the excessive fuel consumption and authorization was granted to obtain estimates on the replacement of the heating plant.

In arriving at the decision to ask for estimates on a new plant the board was influenced not only by the

desire to effect a saving in fuel costs and to provide better heating but also by the unsatisfactory conditions with respect to humidity.

The heavy firing during cold weather literally baked the air. Although there were water sprays in connection with the blowers, we were never able to provide better than 5 per cent humidity during cold weather. Every school official knows what happened. Pupils suffered consistently from colds and sinus trouble and the illnesses resulting from the dehydrated air were considerable.

The new heating plant, which is a two pipe vacuum system, was installed during the summer of 1936. Thus we have had two firing seasons with the new plant.

The figure of \$11,758 as the net yearly saving in the operation and maintenance of the steam plant as compared with warm air, although it includes supplementary heating and decorating, is, nevertheless, incomplete. It is obvious that it takes more manpower to shovel 1430 tons of coal than 387 tons. It is equally obvious that the cost of removing ashes has been proportionately reduced.

Nor does the tabulation show savings effected in such intangibles as the improvement in the health of the pupils. Individual room thermostats provide accurate control of the temperature in each room. All radiation is of the exposed type. There are no convectors. Furthermore, all radiators, insofar as possible, were placed under the windows.

The heating equipment is entirely separate from the ventilating equipment. The blower fan, which was used with the old plant, and the humidification sprays were retained. This equipment, now that it has been divorced from the heating plant, functions perfectly. There is no difficulty in maintaining a relative humidity of 35 per cent with the present system whereas formerly it was impossible to provide better than 5 per cent in severe weather.

Another advantage of the new steam heating plant is that it permits us to heat indirectly the water used in the gymnasium, domestic science rooms and other places where hot water is required. A constant supply of hot water is available without the use of a separate water-heating boiler.

How Chinook Solved Its Problem

FRED A. BRINKMAN and W. L. CONWAY

Architect, Kalispell, Mont., and
Superintendent, Chinook, Mont., Respectively

OCCASIONAL dust storms in Chinook, Mont., make particularly attractive any heating and ventilating system that cleans the air as it is brought into the building. These storms, while not of the extremely destructive type, may last one, two or three days. With a room full of pupils the temperature increases and the air grows foul, yet opening the windows means that within a few minutes everything in the room is covered with sand.

The heating installation in the Chinook High School is a two pipe vacuum system, operating between 2 and 10 inches of vacuum. The vacuum pump is fully automatic and acts both as a vacuum pump and as a boiler return pump.

In each classroom is one heating unit, composed of a copper fin radiator, a fresh air intake and a damper that can be adjusted to take in all room air or all fresh air or any desired proportion of each. The unit has two squirrel cage fans driven by one motor, mounted on rubber.

The auditorium is heated by two large units and by two small units in the balcony. Offices and other rooms are heated by cabinet radiators. On each of these radiators there is a regulating valve for heat adjustment only. All air entering

units from outside is filtered through removable spun glass filters.

There is a three pass, steel, high fire box boiler, designed for burning natural gas. The gas burners are of the upshot type and are fully automatic. A barometric draft control sets the flame at maximum efficiency. The burners are controlled from a thermostat in the main office. The heat supply to the radiators in this office is throttled by the regulating valve so that when this room is up to temperature the rest of the rooms are sure to have heat.

Because the temperature in Chinook drops well below 40° below zero in winter, it is necessary to heat all the rooms part of the time through the night. The main thermostat is an electric clock type with a night setback. This thermostat directly controls the gas burners. The electric circuit to all of the classroom heating units comes from a main line in the boiler room. In this line is a magnetic switch. The secondary coil of the magnetic switch is controlled by an immersion type of aquastat, placed in the steam main near the end of the line. When the steam comes on at night, the heat units in the classrooms run until the thermostat in the office shuts off the gas burners in the boiler.

This Plan Is Far Subtler—

J. RAY STINE

Principal, Central High School, Akron, Ohio

CONFERENCES and surveys bear witness to a growing interest in the possibilities of movies for promoting a better understanding of public education. Many urban parents attended a one room school in the country. Education, both in content and method, has changed so materially in the last quarter of a century that parents are unaware of the complexity of its problems.

A public expenditure may be perfectly good and justifiable but may be rejected by voters because their personal desires for a new automobile, a vacation or new furniture are closer at hand and more fully appreciated. The problem of obtaining public funds for education or any other public enterprise must pass the test of contributing a greater possible satisfaction than the multitude of personal desires that is always present.

How can we present the problem of education to those who feel they are thinking in terms of modern day demands but who, in reality, are viewing the needs of education today in terms of a one room school? The same situation is faced by other city services—water works system, sewage system, health department, electric light and power service. Only to the extent that the public fully appreciates the details and functions of any of these services can it be sympathetic to their demands.

Enlisting Parental Support

The problem is to get parents who were reared differently to appreciate the educational needs of an age in which the span of progress is equivalent to several decades.

We need, further, to train pupils in the public schools properly to evaluate public services, if we expect them to contribute support when they become voters. This becomes increasingly difficult when lukewarm support is found in the home and when these issues become partisan or political in the press and over the radio.

School-made movies can be helpful. Usually, school movies are pro-

duced by taking views of school activities. These are shown before luncheon clubs, parent-teacher groups, study clubs, fraternal organizations, political meetings and church societies. The same pictures are shown to pupils in the school, especially in the upper grades, so that they may develop a more thorough appreciation of the offerings and accomplishments available through the school.

Another plan, developed at Central High School, Akron, Ohio, is to confine attention largely to problems outside the school in which both the public and the pupils are interested. Citizens, given factual information and an understanding of a public service little understood before, are in a better frame of mind to support an educational program that is doing for their children exactly what the detailed visual study did for them. It is apparent that films that analyze current problems for the community and for pupils accomplish the task far more subtly than the direct approach.

School Gives a Public Service

Public interest will hardly permit the showing each year of a revamped movie of school activities. Nor is such a picture usable in the school except for the educational guidance it contains. However, films of community services involving issues of unusual current interest enable the school to serve the public and to keep its reputation as an institution that is constantly alert to public needs and worthy of the support the administration seeks.

Illustrations of this service, as we have developed it, may clarify our method. Seven years ago, when our city was developing its present efficient municipal water supply, a 16 mm. silent movie was made. This was shown repeatedly to public groups and has, every semester since it was made, helped each high school class in community civics to understand our water supply system.

In recent films that clarify current problems to adult groups, reference

Most administrators believe that the way to reach the public through school-made movies is to shoot scenes of school activities. A subtler approach, according to Mr. Stine, is to produce movies that analyze various community problems

is made to previous films so as to keep before the public the practical and vital nature of this training course in social services. We have made films covering the Community Fund, sewage disposal, early historic Akron, social service agencies of the Community Fund and the Akron health department.

All Films Are Purposeful

Whenever a film is made there is a reason for its production in terms of community service. We recently filmed Albert Tangora, the world champion typist, in action, during a demonstration in our school. This, of course, is a technical film but will be of genuine service in our commercial department.

We are planning a film to portray in detail the extracurricular activities of the school. In Central High School, all these activities are carried on in out-of-school hours. While this should serve as a guidance film for pupils entering the high school, it also will convey to the public the contribution that teachers are rendering to pupils because of their desire to serve and for which they are paid no additional salary.

While all of these are silent films, a lecture has been synchronized with them in every instance. This not only makes it a sound film for all practical purposes but adds a touch of personal interest. In most instances, after the picture is shown, a five minute summary is given.

Films produced by any school should be produced for a purpose. The demand for them proves whether or not they are serving that purpose. The film "Early Historic

Akron" has been shown to public groups in Akron and the vicinity 144 times and we still have bookings ahead (the film was made in the summer of 1936). Would anyone question that assisting the public to understand problems of the Community Fund and the work of the health department are other than public relations services of the highest order?

We produce no film unless we feel that it meets a training need in the school or renders a service to the public. Usually, our films do both. We study the problem from an educational point of view, then work in cooperation with the heads of public service departments. We have had only the most commendable cooperation from the heads of departments whose activities we have filmed. They, too, realize the benefit of such a program of education.

We write the lecture for the film, check it for technical accuracy with

department heads and then rewrite it into a simple story of factual information. The next step is to stop-watch the lecture and thereby determine the footage for each view. This is not difficult and it saves time and disappointment when editing the film. We are not producing these films commercially and cannot send them with the accompanying lectures to other cities for inspection.

Finally, aside from a public relations service, we have built a ninth grade visual education course in community civics which is meeting a distinct need. This course, still in the experimental stage, has progressed far enough to lead us to believe that out of all our efforts will come an effective course in genuine functional community civics. Who can predict the increased interest and respect that adults may eventually have for an educational program that really prepares youth to become intelligent participants in community life!

Making the Most of Noon Hour

ROBERT BATES

Head, Mathematics Department
Beaverton Rural Agricultural School, Beaverton, Mich.

WHEREVER consolidated or rural agricultural units are established a new problem presents itself because so few pupils return home for lunches during the noon hour. This problem is one of finding some activity that will create enough interest within the student body to keep the pupils from spending their time roaming the streets, visiting stores and poolrooms or amusing themselves elsewhere.

The problem at Beaverton, Mich., is particularly acute since a gymnasium was not included in the building program when the new junior-senior high school building was constructed. The gymnasium, always referred to as the community building, is located two and one half blocks from the main unit. This makes it less available for recreational uses. Therefore, a survey was begun to see what uses could be made of the new junior-senior high school building for recreational facilities.

Ping-pong was first introduced. The library study, with its movable study tables, was large enough to

allow many games to be put into play. Not only did the game attract many participants but practically every contest had its gallery of enthusiastic spectators awaiting their opportunity to play. The climax of enthusiasm came when drawings were made for singles and doubles tournaments.

Each year new facilities are added to the recreational program. Chinese checkers was an innovation a year ago. Shuffleboard is now one of the popular games.

The establishment of this recreational program has given opportunity for correlation and practical application of many courses in the high school curriculum. In this connection the tenth grade geometry class completed a project in the construction of Chinese checker boards. The project was opened by the realization of the need for this currently popular game in the recreation program. First, the class as a group visited the lumber yard where materials were considered for their durability, finish, cost and general suitability. It was decided to use plywood, which was

to be backed with pressed wood, thus making a board suitable for two games.

Measurements were taken from a board that had been purchased. Nevertheless, several problems arose. The knowledge of geometry required was use of parallel lines, circles, diagonals, equilateral triangles, 30° and 60° triangles, radii, hypotenuses, legs of right triangles, parallelograms, hexagons and squares. The most difficult problem was that of finding the center and radius of a circle in which two equilateral triangles could be inscribed, each having sides of 1 foot. Three methods were used by the pupils in the class to solve this problem. Some used scale measurements, others used the relations which exist in the 30° and 60° right triangles, while still others used similar triangles in ratio and proportion.

When pupils had nearly completed the layout of their checker boards, the class changed to one of art. The art instructor explained to the class the color wheel with its contrasting and harmonious groups of colors and presented the different color groupings. From this study each pupil was able to select a pleasing combination of colors. Each member of the class completed one Chinese checker board, backed with a piece of pressed wood on which a game, such as checkers, Snow White and the Seven Dwarfs or the game of India, was laid out. During the noon hour these games are checked out to the pupils and are used in the classrooms designated for that purpose.

Each year more recreational facilities are added. One classroom may be set aside for radio programs during the noon hour. Then, in connection with the visual aids program, we hope to make use of the sound projector in short free programs once each week.

In spite of the fact that the gymnasium is some distance from the junior-senior high school building, intramural teams, such as volley ball and basketball, are to be organized.

The recreational facilities already made available have done much to solve our problems. This only indicates that it is necessary to provide our pupils with a program of activities so appealing that the desire for loitering in undesirable places during the noon hour is removed.

St. Louis Names a Superintendent

WILLIS H. REALS

Associate Professor of Education
Washington University

ST. LOUIS has departed from a long established tradition in selecting its new superintendent of instruction from outside the city. Persons selected for high administrative positions have been regularly those promoted from within. But the unusual circumstances surrounding the separation of Supt. Henry J. Gerling from the system and the revelations leading to a grand jury investigation apparently led the school board to yield to the influence of active citizens' groups and the local newspapers which declared that, even though St. Louis has certain outstanding leaders who are as good as can be found anywhere, there would be certain advantages in such a critical time in not limiting the selection to a local candidate.

A greater departure from tradition, however, was the decision to set up a professional committee, having no connection with the public schools, to make recommendations. The board was undoubtedly influenced in this decision by the constant and repeated newspaper publicity given to supposed irregular dealings between certain members of the board and employes of the school system. The board seemed to feel that, as a result of all this, the public had lost confidence in its sincerity and ability to select a capable leader uninfluenced by any previous entanglements.

On January 19 the board requested the president of the University of Missouri and the heads of two local institutions of higher learning, Washington and St. Louis universities, to appoint one man from each of their faculties who would constitute an advisory committee to canvass the entire country and to recommend six candidates. From these candidates the board would make its selection. This method was essentially that suggested in one of the many letters sent to the school board immediately upon the announcement of the vacancy in the superintendency.

The plan, however, was by no means a new one. Similar proce-

Criteria Adopted by the St. Louis Advisory Committee for Selecting a Superintendent of Schools

1. He should have adequate professional training which is well integrated with a broad liberal culture.
2. He should have at least five years' board experience as an administrator in a large school system.
3. He should be in the prime of life, capable of giving ten or fifteen years of vigorous leadership. Preferably, he should be not more than 50 years of age.
4. He should have a high degree of social intelligence so that he will represent the school system in an attractive way in any situation.
5. He should have demonstrated his ability to organize and put into effect a forward-looking educational program in the areas of kindergarten, elementary, secondary, junior college and adult education.
6. He should have shown evidence of educational leadership in relation to the community, the board and the school staff, based on democratic (cooperative) procedures.
7. He should have an appreciative sympathy with all matters affecting the welfare of the community and, particularly, of its different social groups.
8. His presence in his community should have been a factor in helping the people to desire better schools for youth.
9. He should have the respect of fellow school executives in the geographical area in which he works.
10. He must be a man of unusual tact and possess a high degree of moral courage and undoubted personal and professional integrity.

dures had been used successfully elsewhere, notably in Chicago, when in 1919 the board of education appointed a commission of nine representative citizens to canvass the United States for the best possible man to head the schools there. The result was the selection of Mr. Chadsey, whose term was a short one, because Mayor William Hale Thompson was almost immediately reelected in April 1919, and the ensuing turmoil led Chadsey to resign after only a few weeks of service in the Chicago schools.¹

A few years ago Portland, Ore., selected a board of three men, representing the institutions of higher learning in that state, to recommend a slate of candidates for the vacancy there.²

The St. Louis advisory committee, in selecting a person for inclusion in its list, adopted the accompanying criteria, not announced publicly, however, until it submitted its panel.

Letters were sent by the individual members of the advisory committee

to persons, approximately 30 in all, who each of them felt were in positions to know and to be able to recommend outstanding men for the position. These persons were asked to suggest the names of not more than three men who they thought possessed the qualifications demanded for the St. Louis superintendency. Many of the names suggested by these 30 men were common to two or more lists submitted.

The list of nominees numbered about 50, but was reduced by the committee to approximately 35, and was completed in sufficient time before the St. Louis meeting of the American Association of School Administrators to allow invitations to be extended for personal interviews with the committee during the convention. Somewhat later, interviews were held with local candidates.

A sealed list of six nominees was presented by the advisory committee to the board early in April. The list remained sealed until opened in the presence of the full board and a number of representative citizens on April 4. The following names were submitted: Homer W. Anderson,

(Continued on page 96)

¹Counts, George S.: *School and Society in Chicago*. New York: Harcourt, Brace and Company, 1928, p. 68.

²Jewell, James R.: *Portland Gets Its Man*, *The NATION'S SCHOOLS* 21:31 (Jan.) 1938.

Providence Presents

JOSEPH H. STANNARD



The plan is excellent. It is laid out in a straight line, the only offsets being the cafeteria, gymnasiums, music rooms and auditorium. The orderly and rapid movement of classes from one section of the building to another and its evacuation in case of fire are simplified by this arrangement and the simplification is helped by the generous width of the corridors. Twenty-five hundred pupil lockers are installed flush with the surface of the corridor walls and are set in tile. They are equipped with combination locks, which have been found to be entirely satisfactory.

For convenience, the building is divided into suites to be used by the various departments. Each department head has a roomy and well-equipped office.

The lobby on the ground floor is entered through heavy bronze doors

Left: Equipment for all appropriate athletic activities is included in the boys' gymnasium. **Below:** One of many special rooms on the ground floor is the social room, used for classes in the social arts and for entertaining. It is finished in knotty pine wainscot and furnished in maple.

THE Mount Pleasant High School serves the senior high school population residing in the northwestern section of Providence, R. I. It has a capacity of 2200 pupils. It is a brick structure with limestone trim, ornamented with two towers. There are four floors above the basement, with the tower section carried to a fifth floor. Its cost was \$2,000,000. Educational design was by former deputy superintendent, Erik A. Anderson, and the plans were drawn by James V. Colgan of the department of public buildings.

The building is ideally situated on a hill, commanding an excellent view of the city, but well away from its business center. It is in open country and is surrounded by a 28 acre campus, which is being developed into large athletic and playing fields.



New Senior High

Principal, Mount Pleasant High School
Providence, R. I.

at the front of the building. Other bronze doors separate the lobby from the corridor, which runs between it and the auditorium. The museum to the right of the lobby is used for displays of art exhibits and other work done by the pupils. Set into the walls of the corridor between the lobby and the auditorium are four large cases with mirror backgrounds and shelves where the various departments display examples of their work. There are also bulletin cases with glass doors set into the walls in the corridors on each floor.

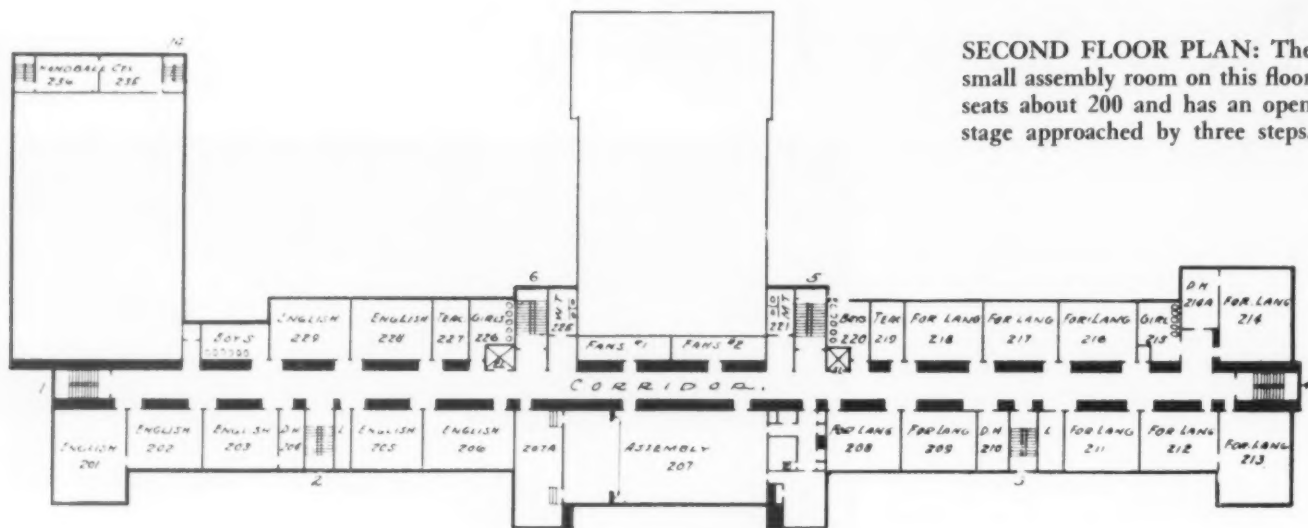
The auditorium has a capacity of 1077. There is an excellent ventilating system. The lighting for the auditorium is indirect. The stage is lighted by spotlights fitted into the ceiling of the auditorium and by footlights and all other lights appropriate to stage lighting. It has the

Right: Heavy bronze doors lead into the lobby on the ground floor. A museum to the right is used for displays of art exhibits. Below: The library, beautiful in the richness of its oak paneling, which is decorated with carving, is on the third floor. It is furnished in wood to match paneling.

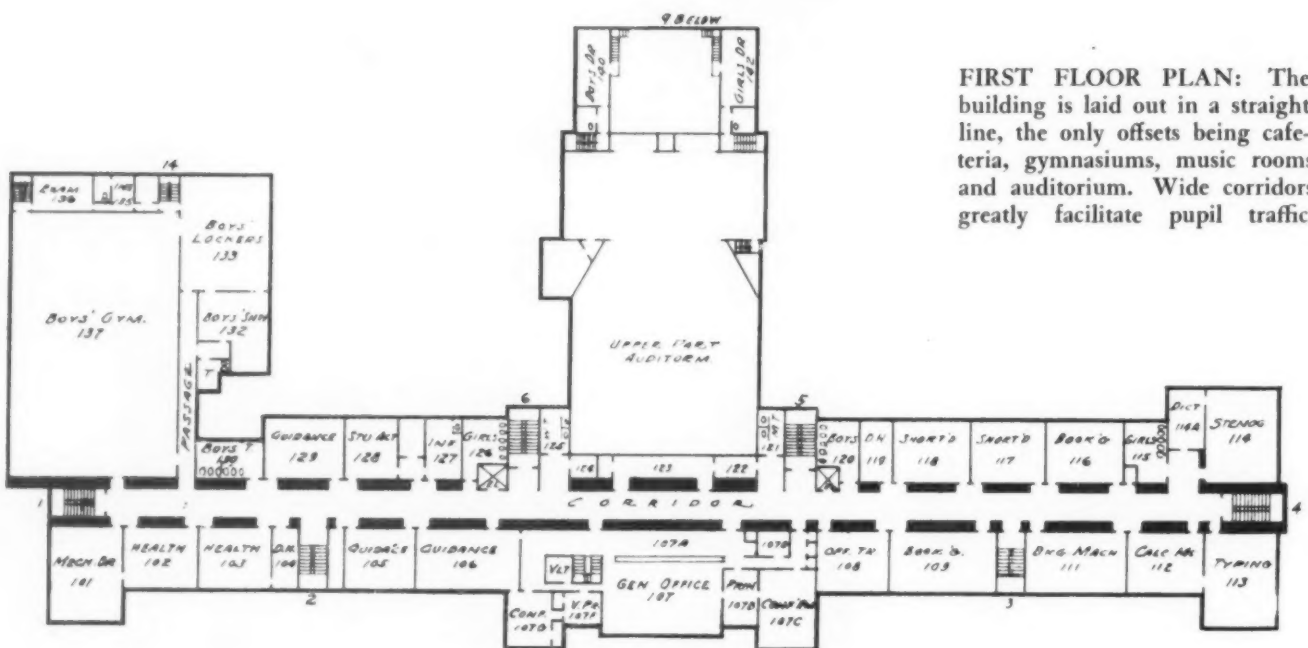


most modern professional equipment. Provision is made for moving pictures by means of two large projection machines installed in a fireproof and soundproof booth, located at the second floor level at the back. The acoustics is such that one speaking in a conversational tone from the stage can be heard clearly at the rear of the hall. An orchestra pit with a capacity of 80 is located just below the front of the stage. Access to the pit is gained from beneath the stage through a small alley, which permits each member of the band or orchestra to enter the pit at his own station.

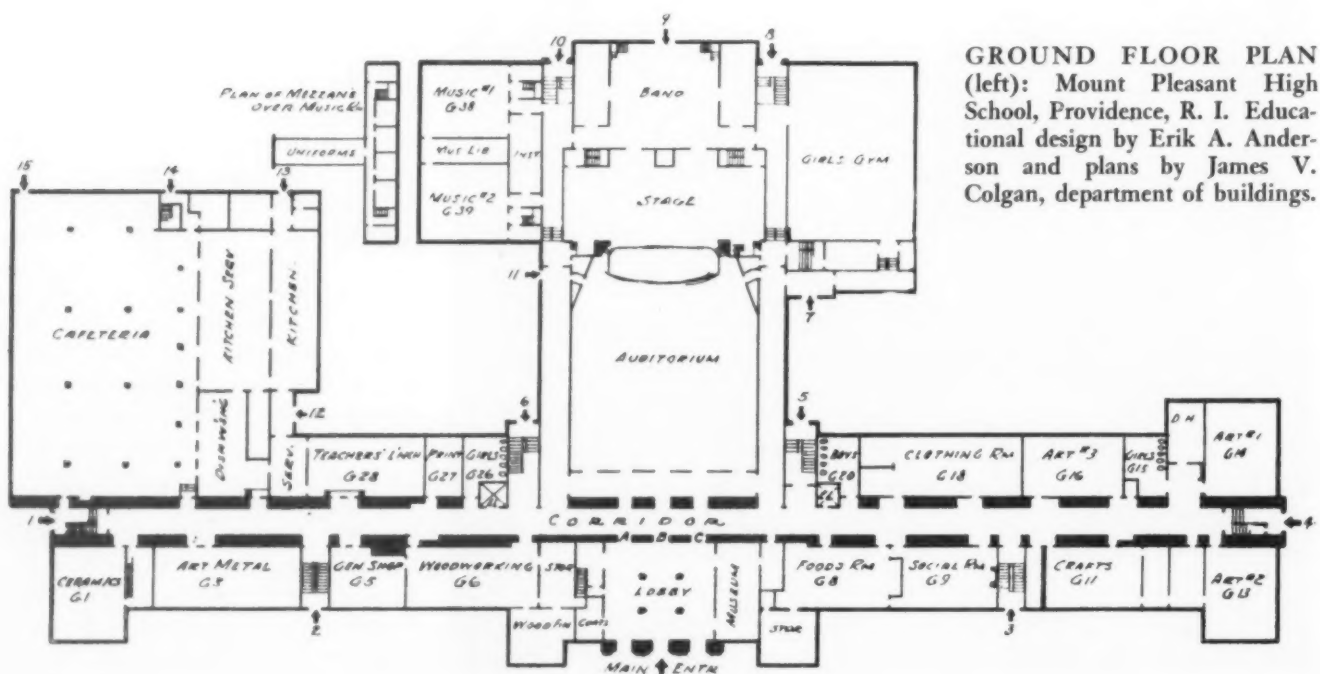
Grilles at either side of the proscenium contain loud-speakers for the radio system, which is installed throughout the building. The radio equipment is thoroughly modern. A loud-speaker in each room carries



SECOND FLOOR PLAN: The small assembly room on this floor seats about 200 and has an open stage approached by three steps.



FIRST FLOOR PLAN: The building is laid out in a straight line, the only offsets being cafeteria, gymnasiums, music rooms and auditorium. Wide corridors greatly facilitate pupil traffic.



GROUND FLOOR PLAN (left): Mount Pleasant High School, Providence, R. I. Educational design by Erik A. Anderson and plans by James V. Colgan, department of buildings.

broadcasts from the various outside radio stations, the stage in the auditorium on the second floor and the administrative offices.

On the ground floor are many special areas, such as shops, art and home economics rooms. The social room, for example, is finished in knotty pine and furnished in maple. This room is used for classes in the social arts and for entertaining visitors.

On the first floor is the boys' gymnasium. This is 70 by 100 feet and has equipment for all appropriate athletic activities. Connected with the gymnasium are a shower room and offices for the physical instructors and for physical examinations. The visiting team rooms are located immediately below the gymnasium.

The girls' gymnasium is on the ground floor. Connected with it is a large shower room with 125 individual enclosed showers. The water is controlled by a matron who is in constant attendance.

The administrative offices, located on the first floor, are most conveniently planned. The general office is paneled in oak, as is the principal's office, and is fully equipped with all necessary office appliances. Soundproofed ceilings are used here, as they are throughout most of the building. The floors are hard rubber tile. There is a large fireproof vault with a safe combination in which valuable documents and records are stored.

The small auditorium on the second floor is an attractive room, seating about 200, with an open stage, approached by a flight of three low steps and flanked by large pilasters on either side.

On the third floor are two of the most beautiful rooms in the building, the study hall and the library. Both are finished in oak paneling, decorated with carving, and are furnished in wood to match. The study hall holds 300 pupils, two being seated at a table. This arrangement simplifies the supervision of this large number of pupils with only one teacher required. The library accommodates 110 pupils. It is situated directly across the corridor from the study hall. Pupils are assigned to the library for reference reading and also for classes in the study of library usage.

The tower section of the building, carried to the fifth floor, contains a



General office is paneled in oak; ceiling, soundproofed; floor, tile.

conservatory with glass roof, located between the two towers. Here opportunity is afforded pupils for experimentation in the matter taught them in their biology classes. The two towers have well-furnished rest rooms for the faculty.

In the basement are the janitors' rooms, storerooms, stockrooms, laundry and heating and ventilating plants. No basement rooms are used for instructional purposes.

The equipment of the rooms and various departments throughout the building is excellent. Classrooms are furnished with tablet arm chairs, making the seating capacity of the rooms flexible. Every classroom is adequately equipped with cupboards and other storage space, blackboards and bulletin boards. All artificial

lighting is semidirect and there is little shadow when this lighting is used. Ventilation is obtained through vents below the windows leading into heating units where, in cold weather, the fresh air is warmed and then blown into the rooms by electrically operated fans, which are an integral part of the heating unit.

The building is equipped with two automatic elevators. These elevators are for the use of the faculty and can be operated only by keys. An intercommunicating telephone system connects the office with all the rooms.

The building has now been in actual use for a year and experience with it in that time has failed to indicate any errors in its design or anything that could have been done to make it more efficient in operation.



Study hall holds 300 pupils, two at a table, simplifying supervision.

Chalk Dust

June Jingle

Commencement orators orate
At so much per oration;
With vigorous alarm they state
The problems of the nation.
They view with pride (and gestures, too)
The land of liberty;
And when, at long last, they are through
They grab their fee and flee.

For why? 'Tis June and all is swell, the universe is gay. No more I hear the clanging bell that calls me every day. I hear no more the clatter of the boiler's morning knock or the spiteful chitter-chatter of the worn out master clock. The halls are mute and dreary, the blackboards dull and gray; but I'm no longer weary. 'Tis June; I'm on my way.

Commencement orators drone on
While infants bawl and yell;
The hardy parents snore or yawn
But scarcely dare rebel,
For speakers are a tedious crop
With wisdom wide and deep.
What matter? Long before they stop
The world is fast asleep.

But tomorrow with jalopy and with credit card in hand, I'll pack the wife and younger kids and seek the promised land. I'll view the open spaces when the world is at its best, I'll climb the highest mountain till the flivver stops to rest. Let dreary business slave and sweat in competition's strife. But give me contemplation and the scholar's wider life. Let others dig and dither throughout the summer's day. But me? I'll simply sit and starve in a quiet sort of way.

ITIRE of writing about school administrators who imagine that they alone are personally responsible for the low incidence of chewing gum or the improvement of the national norms in English. I want to write about a more important person.

The young lady's name is Lovinia Robbins. She has been principal of the grade schools at Hamburg, N. Y., for almost fifty years and this June she is retiring. For fifty Septembers hundreds of bewildered little people have been brought to her by fond mammas, and Lovinia has made each newcomer welcome as a citizen of a bigger

world. She has helped each one to grow in stature and grace and wisdom. In a lifetime of service, she has guided the parents, the children and the children's children. Under her gracious influence the warp and woof of an entire community have been woven. She has given a service that might well be envied by persons of greater rank.

God bless Miss Robbins. God bless all the Misses Robbins who similarly serve in a thousand communities. Humbly, unostentatiously, they carry forward the torch of civilization. As long as that torch remains in their capable hands, we shall know that the flame of democracy shall never flicker or die; we shall know that the soul of America is safe.

THE thrill of school administering is not conveyed by the solemn tomes written by practitioners. Rather, it lies in the fact that no day is at all like any other day, which is a complete understatement of the truth.

Today, for instance, I enter the school with conviction and determination. Today I shall leave the trivialities of the office and go forth to supervise. What I have learned in innumerable conventions that will I carry to my teachers, according to the mandates of the Barrs, Burtons and Bruechners.

Today I do nothing of the sort. I fiddle the requisitions that have fallen during the night. The teacher in 10B wants a box of thumbtacks (nonbendable) and a new swimming pool, while 7A points out that the last batch of chalk is dusty, that we ought to have a courtesy campaign and the young Smith angel ate the last pint of paste. Miss A is again having trouble with her ventilators and Miss B has a virulent attack of vox pedagogorum. And, behold! It is time for the morning mail.

To supervise or not to supervise. Am I a mouse or a man? Am I a superintendent of schools or what? Echo answers, What?

Everdina, take a memo! Tomorrow I shall supervise. Tomorrow I shall visit my schools. Tomorrow shall I go forth to visit my teachers, according to the mandates of the Barrs, Burtons and Bruechners.

Lovinia Robbins

Salaries of School Physicians

EARL E. KLEINSCHMIDT, M.D., D.P.H.

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AS A rule, school health workers receive inadequate compensation for their services. That this has been especially true of the school physician is indicated by remarks, such as the following:

A prominent member of the American School Health Association asks, "Why should nurses and physical educators receive twice the salary of medical inspectors? Why should a medical inspector be paid only \$750 per year to examine 2500 school children and be responsible for their health supervision?"¹

Another physician writes, "The salary scale of school physicians in this state (Pennsylvania) is unjustly low. In many instances they are paid less than a teacher, a nurse or a physical educator. Rarely do they receive the annual increment granted to teachers, supervisors and others. The same is probably true in other states."²

Part-Time Services Only

From Massachusetts it is learned that: "In the Public Health Bulletin of the State Department of Public Health of 1917, there appear some statistics on school medical service, which are as follows: 'There are 578 physicians, their salary in 7 towns is nothing; in 215 places it does not exceed \$100; in 62 places it is between \$200 and \$300.' In the majority of places service given is not more than two hours a week. The examination consists of an inspection for skin diseases and pediculosis and for abnormal conditions of nose and throat. Sometimes the teeth are inspected and the general condition is noted. In 31 places records are kept on cards or sheets.

"Much water has run under the bridge in twenty years. Now there are 529 physicians with an average salary of \$522.25, who are provided with standard record cards for re-

cording a far more complete health examination than that mentioned above."³

This analysis included many of the smaller towns as well as cities in Massachusetts. Data obtained from other states in a recent investigation⁴ indicate that, while low salaries are received by some school physicians, others are paid salaries more nearly commensurate with their training. This survey included 77 school physicians selected from 22 states (and 3 provinces in Canada), 87.7 per cent of whom were located in cities of 10,000 or more population and are representative of the larger school systems in this country. It was found that the median salary of the full-time school physician engaged for the period of twelve months of the year was \$4082.83. For full-time physicians employed for a period of nine or ten months of the year the median salary was \$2999.50. Part-time physicians employed in the schools on a twelve months' basis had a median salary of \$1124.50 and the median salary on a nine or ten months' basis was approximately \$1000. These findings represent the encouraging side of the situation.

Poor Pay Lowers Efficiency

The effects of inadequate compensation on the individual are the same in the field of school health as in other fields of work. The enjoyment usually associated with professional activities is diminished because of the lack of assurance of economic independence and worry in the anticipation of a penniless old age. Financial anxiety becomes associated with despair because of ambitions that cannot be realized. Lowered efficiency is the result. The school system, on

the other hand, suffers as a consequence and also because the compensation offered for service is insufficient to hold and to draw into their employ those better qualified for these positions.

The law of supply and demand also contributes toward the lowered economic status of school health workers. In every town there is some physician just beginning practice who is willing to devote a few hours a day in the schools. He is not interested in school health as a profession and may be willing to sell his services reasonably, so why should the pennywise board of education, which sees no need for specialized training for this position, pay more? Moreover, when economic conditions as a whole are not at their best, it is frequently the best policy to give local practitioners first chance at the job.

Preventive Medicine Ignored

Lack of appreciation for the work of the school physician may originate in the admiration of the public for the unusual; in part, it may be responsible for the existence of inadequate salary standards. There is little that is spectacular about the field of preventive medicine and school health as there exists, for example, in the work of the surgeon. Consequently, the qualifications and training of the school physician are frequently minimized. In fact, there are people who have the idea that the school physician is engaged in this field of activity because he would be unsuccessful as a medical practitioner.

That the physician's years of preparation and the cost of his training are frequently ignored and that he is not given the same consideration as members of the teaching profession are indicated in the following incident. Recently, I was discussing the problem of salary standards of school personnel with a woman member of a board of education from one of Michigan's largest cities. It was her opinion that a teacher should be paid on the basis of the amount of training, experience and years of schooling she had, rather than on the basis

¹School Physicians Poorly Paid, School Physicians' Bulletin 4:11 (Jan.) 1934.

²Bortner, Clayton E.: "An Appeal for Better Compensation," School Physicians' Bulletin 3:8 (May) 1933.

³Moore, Fredrika: "What Can Be Done About It?" Contact Between the Massachusetts Department of Public Health and School Health Administrators and Medical Officers 2:4 (March) 1937.

⁴The Educational Qualifications of the School Physician. Report of a Committee of the American Association of School Physicians, Am. J. Pub. Health 27 (April) 1937. Special supplement.

of the grade she happened to be teaching. The salary of the school physician, which was inadequate, was also mentioned. In this instance she insisted emphatically that the school physician could never be paid on the same basis, particularly when she learned of the training necessary for this position.

Granted then that the salaries of many school physicians are inade-

quate and that there are many and various factors that contribute toward the situation, let us consider briefly what these salary standards should be and what may be done to bring about their adoption.

Primarily, the school medical officer is carefully chosen because of his high personal qualifications, professional preparation and experience. As in the case of other special positions

in the school system, his situation should be considered a unique one and he should be paid accordingly in view of his special qualifications and training.

Regarding his compensation, Wood and Rowell state, "Standards for pay for different positions vary considerably but for efficient service pay must be ample to warrant the expenditure of maximum time and interest by the employee. The figures below are suggested as a minimum for which efficient service could be expected from persons other than enthusiasts who enter the work as a pastime: health supervisor (director of health program), \$4000 and upward; part-time physicians, on the basis of two hours per day guaranteed during the forty weeks of the school year, five days per week, \$2.50 to \$3 an hour, or \$1000 per year, preferably on an hourly basis; specialists, never less than \$1000 per year on a part-time basis or hourly pay, slightly higher than regular physicians' since the specialist commands higher fees in practice."⁵

As in the case of the teaching profession, there should be a small automatic salary increase each year for a period of years while competency is increasing. Special achievement and the attainment of additional training or special qualifications should be rewarded by an increase in salary. The cost of living must also be considered.

The length of the contract of the school physician should ensure him of an opportunity to do a creditable piece of work. Likewise, there should be provision for a pension system for school health workers, as well as for teachers. This would safeguard the welfare of those who have devoted long years of their lives to this work.

For school physicians to obtain these advantages the rendering of efficient service plays its part, but it is not sufficient. The public and school authorities must be taught the values of adequate health programs. Public health, including school health, must be publicized by the individual and the group. Legislation may be indicated but, most of all, there must be unity of purpose for the achievement of these goals.

⁵Wood, T. D., and Rowell, H. G.: *Health Supervision and Medical Inspection of Schools*. Philadelphia: W. B. Saunders Company, 1927, p. 78.

Guidance in a Small School

EDMOND J. VACHON

Principal, Cabot High School, Cabot, Vt.

IN CONNECTION with our guidance program at Cabot High School, Cabot, Vt., a small school with an enrollment of 80 pupils, we have tried during the past year to bring to pupils some information concerning their various fields of interest. In this endeavor we have not limited ourselves to subject matter concerning occupations alone but have treated any and all subjects in which there is interest and with which the pupils wish to become more familiar. In other words, our program is one that is of value either in earning a living or from a cultural standpoint.

The following subjects already presented last year, or to be presented this year, give some idea of the variety as well as the wide scope of the material which is discussed: teaching, nursing, photography, aviation, geology, evolution, palmistry, art, astronomy, agriculture, dietetics, flowers, personality, music composers, etiquette, musical instruments, radio, accounting, speaking, dramatics, journalism, customs of foreign lands, archeology, medicine, dentistry, forestry work, mineralogy, how to study, electricity and police work.

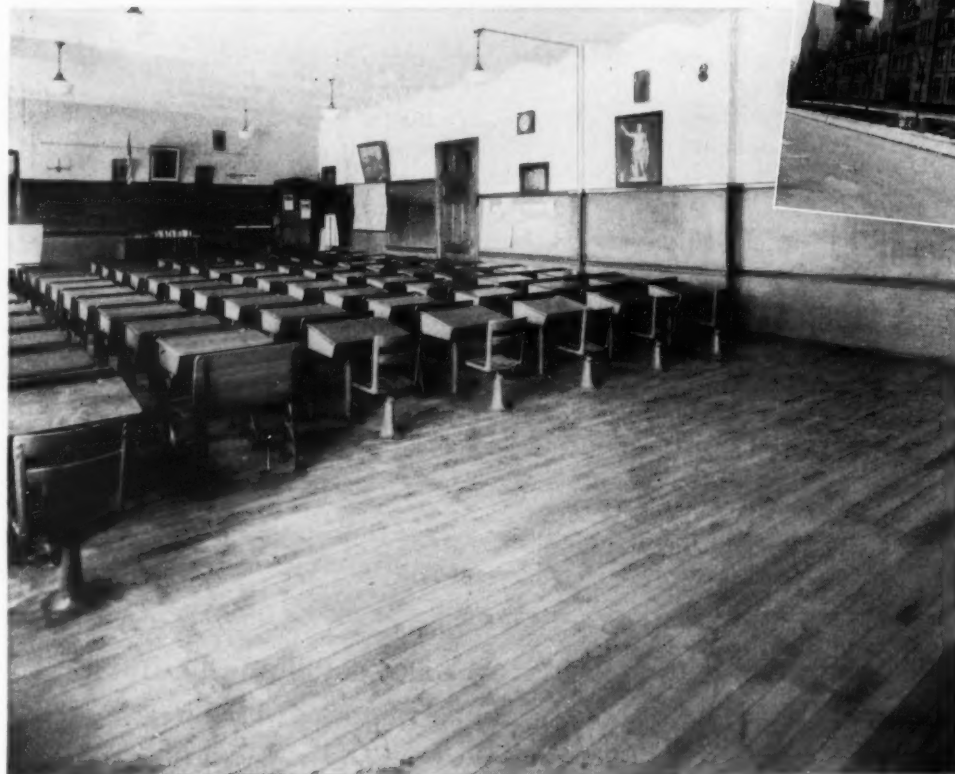
Briefly, the plan works this way: The pupils are asked to submit one or more subjects that they would like to have discussed at a meeting; choices are not bound by any set rules or limitations. After this information is obtained, the various subjects are arranged in their order of frequency and the weekly discussions are carried out in the various subjects in the order of their greatest demand. Local professional people are asked to speak if available.

In our small community all workers fall into one of the following groups: village doctor, teachers, minister, store clerks and farmers, so that it is difficult for us to obtain trained people to speak. Moreover, the nearest city is 22 miles away. We have satisfactorily met this difficulty, I believe, by assigning the various discussions to the five members of our faculty in such a way that, as nearly as possible, the assigned subject matter may be associated with the teacher's major or minor or with some other subject in the teacher's college course or with some outside interest or hobby in which the teacher has attained some degree of efficiency.

From time to time, of course, there are subject demands that do not fit into the life experience of any member of the faculty, in which case one teacher is assigned to look up all the material needed for the discussion. The discussions are held once a week for a period of forty minutes. That they have been popular can be attested by the fact that an average of 90 per cent of the pupils attended them last year as an elective.

The experiment has been repeated again this year at the request of the pupils themselves, who voted the continuation of the "culture period" by a 100 per cent vote. In my opinion, it meets the need of the pupils by discussing the subjects that directly interest them since the pupils themselves submit the discussion material. Moreover, the guidance program also serves to awaken their interests and to open new avenues that may not as yet have penetrated into their field of life experiences.

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Guidance on a County-Wide Scale

JULIAN C. ALDRICH

Education Instructor, New York University

ONE evening in January 1938, eight men were discussing the world's problems. Into this group a member threw the question, "What would you like most to be?" Each one gave his answer and the group discussed life values and problems for some time. The questioner said, "Wouldn't it be fine if a group of pupils could hear us tonight? They would see that their problems are our problems; what an opportunity we might have to share our experiences and thoughts with them."

Out of that evening came the Montebello Conference of May 1938, and its repetition in May 1939. From these conferences has developed a program that has the enthusiastic support of pupils, teachers, principals and persons interested in youth.

Around St. Louis is a suburban area broken into 18 independent city school districts ranging in size from one of 5000 pupils and 190 teachers to one of 300 pupils and 13 teachers. For many years these cities have cooperated in various projects. In 1934 the counselors and principals formed the St. Louis County Guidance Council. For many years it has stimulated local guidance programs by serving as a clearing house for the exchange of practices and ideas and by organizing county-wide programs.

The Montebello Conference was envisioned as an opportunity for young people to come to grips with the significant problems of life, to dig back of questions, such as "What vocation shall I choose?" and "What college shall I attend?" to the basic question, "What shall I be?" When a person has thought through his standards of values, when he has set tentative ultimate goals, he is able to face questions of school and vocation.

It was necessary to do careful preliminary planning. The enthusiastic cooperation of principals and teachers had to be enlisted, the pupils had to be chosen and prepared, the program personnel had to be carefully selected, a place for the confer-

ence had to be chosen, a balanced sequence of activities had to be arranged and a follow-up program had to be planned. Since these problems had been faced and met in 1938, the 1939 program was more easily arranged. The experience of the first year and its evaluation by the pupils, faculties, principals and program personnel were invaluable.

In the winter of 1938-39 several meetings of the council were given over to a summary of the previous conference and its evaluation and to the preparation of a tentative program for the current year. The two representatives of the County Principals' Council on the Guidance Council, with the officers of the latter, formed the planning committee. The program developed was presented by the principals to their own body for suggestions and the program approved. The principals and counselors presented the program to their respective faculties. Each prin-

group reports. In the small groups (12 to 14) free discussion is possible; within the larger group, the smaller ones may participate in a valuable sharing of experience. Much of the value of the conference, obviously, rests upon the leaders of the large and small groups. After a number of years of pupil conferences and panel discussions a list of effective group leaders has been compiled. Even for as large an area as St. Louis this list is pitifully short. Few adults have learned to guide youths in the discussion of their problems; many talk too much or give too much advice. The leader of the conference was chosen for his knowledge of youth, of psychology and of youth's relations to social and personal problems. Dr. C. Gilbert Wrenn has been the leader of the conferences during both years.

In the county area there are about 1700 seniors. It is impossible to offer all these youth the opportunity for free discussion that the Montebello conference requires. In 1938 about

The Montebello Conference is a highlight in pupil experience in St. Louis County, Missouri. It was first envisioned as an opportunity for young people to come to grips with the significant problems of life. Three of the schools arrange such experiences for all seniors

cipal was to determine the method of choosing the pupils from his school who would participate in the conference. The members of the Guidance Council selected the program personnel.

It was found that a camp in the country would give freedom from the tempo of the schoolroom. The Y.W.C.A. camp, Montebello, 18 miles from the center of the county, was ideal from the point of view of distance, beauty and facilities for dealing with a large group.

Experimentation with the program of activities has resulted in a careful balance of large group stimulation, small group discussions and large

120 seniors were included; in 1939 the program was expanded to two days (two separate conferences), which took care of 300 seniors. The choice of pupils was made by each principal. In some schools the representatives were elected, in some they were appointed and some schools combined the two methods of selection.

The preparation of the pupils for the conference was handled by the counselors of the various schools with assistance from council members.

On the morning of the conference the pupils arrived at Camp Montebello. Some explored the grounds, some used the tennis courts, badmin-

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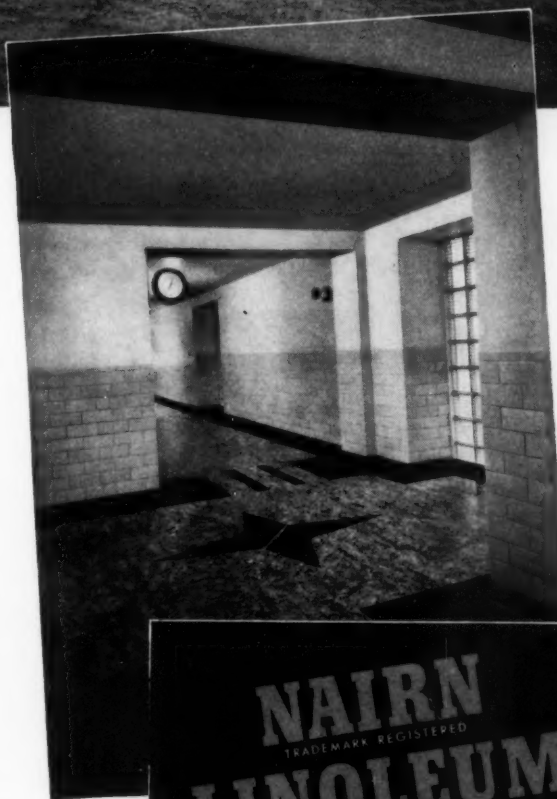
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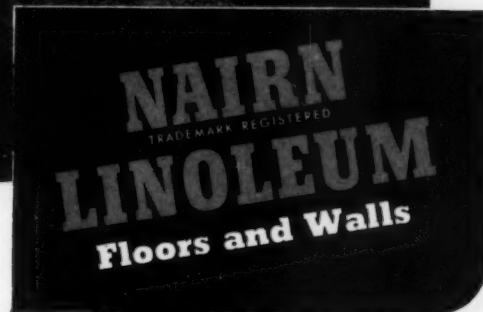
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Note how individual personalization enhances the beauty of these Nairn Floors in the First District School, Covington, Kentucky.



ton courts and swings and some found chairs on the lawn. By 9:30 o'clock the group was assembled in the large recreation hall. After a brief introduction, the leader of the conference was presented. In an interesting and dramatic talk Doctor Wrenn outlined some of the problems that face youths and invited them to discuss them and report back to a later general meeting.

The problems discussed were: the relationship between two generations; friendships, their values and limitations; relations between the sexes: social, psychological and emo-

tional; standards of values and codes of ethics; social justice in terms of individual ethics; religion and spiritual values; the selection of immediate and ultimate goals.

After a half hour of this stimulating introduction the youths were divided into small groups (about 12 in each) under a skilled group leader. The pupils were balanced in terms of representation from different schools and between boys and girls. For more than an hour these small discussion groups ran over the problems in these areas, chose those significant to them, reached tentative

conclusions on some and raised questions about others. A pupil reporter was chosen to carry the group thinking back to the conference.

The pupil reports were given to the conference in a forty-five minute session. In some a running account of the group thinking was given; in all, the group's judgments and questions were stated. Minority reports were encouraged. In this meeting the conference leader took voluminous notes.

The small groups sat together at luncheon tables and enjoyed the social hour at noon. While the pupils enjoyed a period of play, games, hiking and dancing, the group leaders met with the conference leader to plan the afternoon approach. Strong points in the morning's small discussions were mentioned and suggestions for improvement were made.

A general session began the afternoon program. The conference leader summarized the report meeting of the morning and indicated unanswered questions. It was suggested that the afternoon small discussion groups dig more deeply into one or two areas that seemed most significant to youth. These sessions did not attempt to find final answers but to carry thinking beyond the exploratory stage of the morning meetings.

A final general session served as a forum for the consideration of pupils' questions and as a summary. Choosing one of the areas mentioned frequently in the discussions, the conference leader gave a short stimulating talk, directed toward what the pupils might do in working out their problems.

An evening meeting sponsored jointly by the Principals' Council and the Guidance Council considered ways of carrying the values of the conference to those who had not attended. The methods used included reports and panel discussions in classes, homerooms and assemblies, faculty and pupil discussion groups and feature stories in the school newspapers.

The Montebello Conference is a highlight in pupil experience in St. Louis County. Its popularity has encouraged three of the schools to attempt, with the aid of the St. Louis County Guidance Council, to arrange such experiences for all their senior high school pupils.

Why Not Display Your Wares?

LAWRENCE A. BARRETT

High School Principal, Salida, Colo.

HAVE you ever tried a display case in one of the school halls as an incentive to better work among pupils? Possibly some merchant in the community has an old show case that he is ready to discard. This can be repainted and touched up for such a purpose.

Try the plan of having outstanding work from various pupils or departments on display in the corridors for a time. You will find that the natural liking that most pupils have for obtaining recognition will make them strive to have "something on display."

Some departments, such as industrial arts or homemaking, have more opportunity to produce materials that lend themselves to display than have other departments. However, should a particularly fine English theme be found or if there should be turned in a clever model illustrating some mathematics problem or a splendid rock collection or charts or graphs to illustrate some point in history, these may be given display space.

A faculty member may be assigned the responsibility of changing the display, carefully using a wide variety of materials. A certain amount of departmental jealousy can be allayed by attempting to pass the honors about in rotation. It may be advisable to give each department a period of time, say a week, in which it is responsible for the display.

Cards should be used to indicate to spectators the nature of the mate-

rial displayed and, if possible, the names of the makers.

Departments may easily employ the display to encourage other pupils to take work in their field or they can make educational displays demonstrating methods of doing certain kinds of work.

It is well to add a padlock to the case if objects of value are to be left on display. The lock should be an inconspicuous affair that does not distract attention from the display. A reflector to shield the direct rays of the light bulb from the spectators will aid in getting the best effect from the displays.

Often, pupils who do mediocre or even unsatisfactory work in one department may turn in projects or class work of splendid character in another department. This tends to prevent the development of any feeling of inferiority.

There are few pupils who do not get pleasure from having work selected to be put on display in their own classrooms and this pleasure is certain to be magnified if the work is on display before the entire school.

One thing that must be guarded against from the outset is the tendency to use the display case in the corridor as a "leaning post" or a loafing place.

Get yourself a show case and "display your wares." Business houses have made good use of show windows. Surely educators can take a lesson from business in this regard.

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Keep Your Nonpartisan Boards

W. LLOYD SPROUSE

Assistant, College of Education
Ohio State University

WITHIN the last decade there has been more than the usual amount of discussion relative to boards of education. Much of it has been critical and, at times, it has been derogatory. A few of our most prominent educational leaders have advocated dispensing with such boards entirely.¹ The majority of reaction toward such an extreme proposal, however, has been in favor of retaining rather than abandoning them.² The public and the educational profession have hesitated to release lay participation in public educational administration.

A Nonpolitical Tradition

Boards of education, or boards of school trustees, originated soon after the beginning of education in the colonies. The agricultural and industrial expansion of the nation made it impossible for the entire patronage of a school district to participate actively in the school management as it did at first. So the duties of management and supervision of the local schools during this early period were delegated by them to a few trustworthy citizens who enjoyed the complete confidence of the community in which the school was located. These leaders were chosen because they were well educated and successful in their daily vocations. When they were known later as board or committee members, they were elected by the patrons because of their interest in education rather than because of their adherence to a political party. Throughout the years of our educational history, our citizens have cherished this privilege of delegating the control of their schools to a nonpolitical elective organization.

By and large, this trust has not been misplaced. It is true that there have been many instances in which board members were untrue to the

confidence placed in them. Such people have allowed personal greed and political ambition to control their actions. Of course, the schools suffered under such guardianship. Naturally, school patrons have become highly displeased with such a type of school leadership. In their disgust they have suggested at times the abandonment of school boards. However, the majority of citizens of any school community prefer to retain their school trustees and be more careful of their future selections.

One of the important characteristics of public school organization has been its fiscal independence. School boards have been considered to be public officials who could conduct the affairs of the school system without supervision by the local politicians. From the beginning of our national government, education has been recognized as a state function. So the governing body of the schools has been selected by the people at large. Consequently, there has been strong popular support for the independent status of school administration.

Larger Units Are Advocated

As a result of the phenomenal growth of our nation and the increasing complexity of our governmental machinery, many political scientists have advocated the abandonment of the fiscal independency of school organization. They advocate complete union or fusion in the control of school and political service. They claim this will be economical because of a great reduction in the number of units of government. Because of the larger units of administration, they maintain that abler men can be obtained for public service. They indicate an added advantage in financial organization through more effective control of bond issues and purchases of materials and supplies. These political scientists have in mind the establishment of county and city-county units where all functions of government, including the schools, will be combined into one.

However, not all political scientists agree with the theory outlined above. Some recognized authorities in this field fear the possibility of practical politicians controlling education. They know that most offices in civil units have not been professionalized to any great extent. The awarding of such offices has been on the basis of reward for effective political activity in behalf of either of the major party organizations. Placing the control of schools in such hands would be dangerous because of the personal element involved. Even though there have been examples of mismanagement of schools, on the whole they have been administered better than any other unit of local government.

Confidence in Elective Boards

This second group of political scientists feels that the people have greater confidence in the schools when they can elect their school board members. Such confidence is greater when it is seen that the office of superintendent of schools has been professionalized as a result of encouragement by boards organized independently.

Since, then, opinion of political scientists is divided on the issue, let us consider opinions of a former school board member in a large city and of a nationally known educator. A former board of education member of Minneapolis expressed the feeling of a majority of school patrons when she said, "Political attributes commonly ascribed to school board members have their basis in political attitudes on the part of the electorate. Performance on the school board is likely to be at the level at which people have chosen. The first important result on nonpolitical school board control is the increased confidence of the community. . . . It means public support for the policies, aims and procedures of the school system."³

In the same connection John Guy Fowlkes expressed the viewpoint of most educators: "In the light of the fact that school districts are organ-

³Kilgore, Mrs. H. D.: Department of Superintendence Official Report, p. 248, 1933.

¹Judd, Charles H.: School Boards as an Obstruction to Good Administration, *The NATION'S SCHOOLS* 13:13 (Feb.) 1934.

²Keyworth, M. R.: Why Boards of Education Are Both Desirable and Necessary, *The NATION'S SCHOOLS* 13:21 (April) 1934.

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ized as municipal corporations, there seems to be little reason for the selection of boards of education in any way other than by direct ballot of the citizens of a community at a special nonpartisan school election."⁴

In discussing the subject further, Doctor Fowlkes calls to our attention the fact that authorities of public administration recommend voting for board members at large rather than by wards or precincts. The objection to the election by wards is that ward representatives have the school interests of their own small group at heart rather than those of the entire school system. In advocating election by ballot, he feels that it is superior to appointment by mayors and councils in that the latter method encourages selection of the board of education members upon a basis of political affiliation.

In some states of the nation, the mayor and council method of appointment of board of education members is prevalent. In such states the degree to which politics controls the situation depends upon the type of citizenship in the community. But in spite of all possible precautions,

⁴Fowlkes, John Guy: *The NATION'S SCHOOLS* 4:47 (Sept.) 1929.

political control will eventually creep in. There is less possibility of this occurring in communities in which nonpartisan election of boards of education obtains.

Thus far our discussion has been the review of thought in the field of the problem of school administration with regard to boards of education. Judgment is divided as to which is the better path to take in the future. A large majority of our people feels that the board of education should be retained and that the selection of its membership should be of greater interest to patrons. Leading citizens of high integrity must be induced to accept service on school boards. They must be well-educated people, well liked by their neighbors, genuinely interested in public education and they should have children of their own. They should not be active in purely political affairs. People have the utmost confidence in such leaders; much more so than in politicians.

With boards of education composed of citizens of the foregoing qualifications, there will be a need for maintaining fiscal independence. This is not a condition that is dangerous. In fact, it is much safer than control from the city hall. There are

specific statutes in most states governing issuance of bonds, levying of taxes and examination of records, and there is little possibility of school boards overstepping the bounds of safety in financial administration of schools. The most effective argument for fiscal independence is that it tends to keep politics out of the schools or to reduce it to a minimum. We must remember that politicians at times are not as high-minded as are the political scientists.

My own view of the question is that we should retain boards of education in school administration and make the schools fiscally independent. Since the schools are financed by the people, they should be kept as near them as possible. This can be done to the best advantage by continuing boards of education. Then, too, most people seem to have more confidence in them than they have in the officials of the civil government units.

The preferable method of selection of such members is through special nonpartisan school elections. This is true in all communities except, possibly, the large cosmopolitan centers in which people do not know one another. Even there such school elections will tend to keep political influence over the schools to a minimum.

In larger cities, the elective system, as applied to boards of education, is primarily dependent upon a high-minded, unselfish and fearless citizens' committee, supported by the public press. This is often necessary if success is to be attained. With this sort of an arrangement, community leaders can be induced to serve on school boards as is the case in Indianapolis, as well as in some other large cities at the present time. More frequently can well-qualified citizens be induced to serve the schools if their judgments are not subservient to political control.

In conclusion, I do not wish to be understood to guarantee that the method recommended will keep politics out of the schools entirely. It will reduce it to a minimum. Service will be at the level that patrons elect, so they must be encouraged to require high qualifications of the board members they choose. Again we say, "Let us keep the schools near to the people." They belong to them to use in training young people to strive for the democratic way of life.

As Others Say It

Compiled by JOHN G. ROSSMAN
Superintendent of Schools, Warren, Pa.

The best boss doesn't boss; he inspires.—H. A. DODD.

Against a prejudice avoid a frontal attack.—FRENCH PROVERB.

He is best educated who is the most useful.—HUBBARD.

All solutions are simple, when you once arrive at them.—SIR HENRY DETERDING.

The soul is dyed with the color of its leisure thoughts.—DEAN INGE.

The aim of education is to enable a person to continue his education.—JOHN DEWEY.

Experience is the best of schoolmasters, only the school fees are heavy.—CARLYLE.

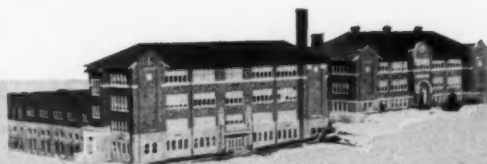
The rest of your days depend upon the rest of your nights.—EXCHANGE.

I don't think much of a man who is not wiser today than he was yesterday.—ABRAHAM LINCOLN.

There is no music in a rest, that I know of, but there is the making of music in it.—RUSKIN.

You can always tell when a statement is hokey. It runs counter to your pet beliefs.—BROOKLYN EAGLE.

The true teacher is both idealist and builder. He works with the most precious materials, the mind and soul of youth.—CORNELIA ADAIR.



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OUR state constitutions require public school facilities to be made available throughout the state. Every state has a statute making attendance at some school, public or private, compulsory for children between specified ages.

In providing public school facilities the state acts through the agency of local public school districts, each of which is a quasi-corporation embracing a specified territory and having established boundaries. The fact that there are now at least 120,000 such districts in existence and that many thousands of them are too small in population or resources to maintain even an elementary school of a size permitting either economical operation or fulfillment of the educational function in our day is significant.

With a state cut into a minute and complex patchwork of small districts, it happens in a large number of instances that a pupil resident in one district finds a school in an adjacent district is actually nearer to his home and more convenient of access. From the standpoint of his educational needs, it may also be a more desirable school. Insofar as may be practicable, the pupil should be allowed to attend the school most convenient to his home and best suited to his needs.

Must Demonstrate Convenience

It is not, however, feasible to afford unlimited freedom of choice in these respects. "The general scheme of school law contemplates that children of a school district be educated in the district of their residence, subject only to reasonable exceptions," says a Pennsylvania court in a recent typical case. When a statute gives pupils a right to attend a "more convenient" school in a district other than that of their residence, this does not mean a privately determined preference but a demonstrable public convenience, such as shorter distance, better roads or public carriers.¹

¹East Berlin School District v. Dover School District, (Pa. Common Pleas), 52 York 93 (1939).

Before examining further the present state of the law on this subject, it will be well to note that the situation is complicated by many factors. Public high schools have become a part of the common school system and the complete inability of many small districts to maintain anything resembling a high school has caused a general recognition that pupils resident in such districts must be allowed to attend high schools maintained by other districts. The extent of this necessity is roughly indicated by the fact that, although there are 120,000 school districts, there are only some 27,000 public high schools.

Statutes Fix Tuition Fees

Statutes providing for high school attendance by nonresident pupils are general among the states. The earlier type of statute was merely permissive, leaving the matter of tuition fees to be adjusted by negotiation between the two districts concerned. Nowadays, it is more common for the statute to make the "transfer" of such pupils compulsory under specified circumstances. Often the statute either fixes the amount of the tuition fee outright or establishes an objective formula by which it must be computed. The earlier practice was to make the home district fully and solely responsible for payment of the tuition fees. Already in several states they have been made a charge upon the county and in some states they are payable out of state school funds.

Another complicating factor is introduced by the apportionment of state aid to school districts on the basis of the number of pupils in average daily attendance. In some instances this causes neighboring districts to enter into active competition to swell their respective enrollments. The spectacle of one district invading another with its school buses and enticing pupils away is by no means unknown. How often this actually results in better educational opportunities for the pupils concerned, and perhaps ultimately in a merging of

the districts into more efficient units, it is impossible to say.

In some instances it produces, for the time being at least, much bad feeling and litigation. At best, the idea of one public school unit striving to draw away the clientele of another for its own aggrandizement seems none too salutary. It may be, however, an unavoidable passing phase in the difficult evolution of larger school districts.

The state has unquestioned legal authority to create or to abolish school districts and to change their boundaries at will. In practice this power is delegated to the local authorities and is often yet made to depend upon the will of the people of each small territory concerned, as expressed through a popular vote. The statutes of the 48 states touching this matter are a tangled jungle that no one has fully explored. In large part they are outworn holdovers from the horse-and-buggy age.

Merging of Districts

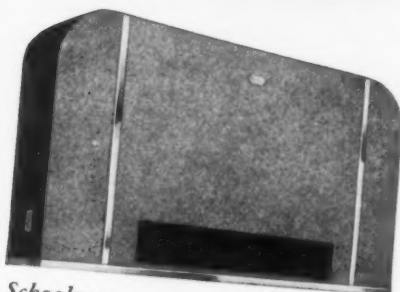
It is not to be overlooked that in 1932 West Virginia took the decisive step of abolishing all school districts territorially smaller than counties. In states in which a more diffident approach is made, a modern practice is to authorize the state education department to survey the situation in any county at the request of the local authorities and to recommend a reorganization and merging of districts to suit current needs and resources. In New York, Ohio and other states some progress is thus being made. The extensive study of local school unit organization in 10 states recently completed by the U. S. Office of Education with emergency funds has been a stimulating influence.

With the foregoing sketchy background we can look at some current judicial decisions touching the rights of pupils. We shall perceive a small sampling of the confusion, uncertainties and deprivations that a great reduction of the number of small school districts would obviate in large part.

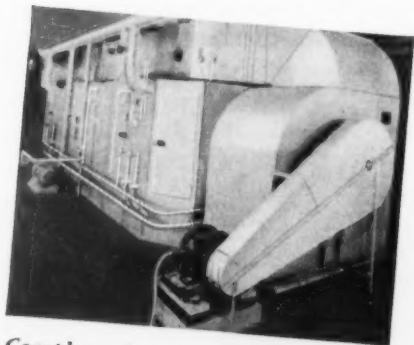
In Ohio the supreme court issued a writ of mandamus to compel the

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state director of education to include in the basis of his apportionment of state school funds to a rural school district 27 elementary pupils who resided in another district. It was admitted, said the court, that these pupils, living more than 1½ miles from the school to which they were assigned in their home district, were entitled under the statute to attend the school in the adjoining district, regardless of the fact that their home district was willing to transport them to its own school.²

The fact that this statement was agreed to by both parties in the suit, and not decided by the court as a

²State ex rel. Board of Education of Roundhead Rural School District v. Dietrich, Director of Education, 135 Ohio St. 566, 21 N. E. (2d) 668 (1939).

controverted issue of law, is important. This circumstance enabled an Ohio appellate court to make the following pronouncement in another case only a few weeks later: "In a school district where adequate school facilities are available and transportation is furnished as required by law, an elementary pupil residing in such district does not have an absolute right to select a school in another district and compel his local board to pay his tuition."³

In this case the court refused to order a city school district to admit a pupil from an adjoining rural district who lived more than 4 miles from the rural school but was trans-

³State ex rel. Cook et al. v. Board of Education of Portsmouth City School District, (Ohio App.), 25 N. E. (2d) 317 (1939).

ported thereto. This conclusion, said the appellate court, was inescapable from a reading of the several scattered sections of the statutes bearing on the question.

An Oklahoma case is of interest. One district maintaining a high school sent its buses into another district to transport high school pupils who had been regularly transferred to its high school. Incidentally, the same buses picked up some elementary pupils who had not been transferred but whose parents not only were willing that they should attend the out-of-district school but personally paid their tuition fees. Their home district sued for an injunction to prevent the neighboring school from receiving these elementary pupils.

The court pointed to a statute that authorizes school boards "to admit scholars from adjoining districts, provided the said pupils shall pay a tuition fee," and held that the home district could no more prevent this than it could prevent pupils of school age from attending a private school. The court concluded: "We have not entirely excluded the parents of the children in this state . . . from a measure of discretion in the matter."⁴

It went on, however, to take notice of two other statutory provisions which were not pleaded in this case but which might possibly have been successfully pleaded to change the result, so far as the record shows. Districts in Oklahoma may not transport nonresident pupils at a cost in excess of the "transfer fees or tuition secured from such transferred child," nor under any circumstances if such transportation entails additional expense or taxation upon the district; and such transportation is forbidden when it conflicts with transportation furnished by the home district.

These are only a few of thousands of examples that might be cited to show that the choice of a public school is severely limited by district lines. If all districts maintained equally good and complete school systems, this would be of little consequence. But the immense disparities in the size and quality of the schools in different districts make it a matter of great importance to parents and children.


⁴Consolidated School District No. 12 et al. v. Union Graded School District No. 3 et al., (Okla.), 94 P. (2d) 549 (1939).

Cutout Figures Halt Traffic



ALL of the schools, both public and parochial, in Irvington-on-Hudson, N. Y., are located on the main streets of the village. While the police department has cooperated admirably with the schools by having a member of the force on duty at the opening and closing of school, there have been, nevertheless, real hazards at these times. Village offi-

cials conceived the idea of replacing the usual "school crossing" signs with the wooden cutout figures of boys and girls. The original drawing of the boy and girl was made by a pupil in the art department of the Irvington High School. The cutting of the figures, the woodworking and the painting were done in the industrial arts department.

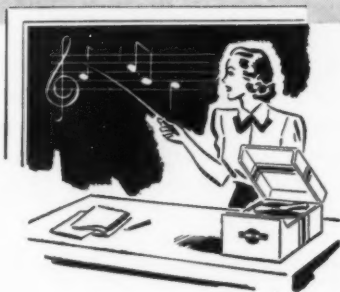


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Folk Songs

- (A)—Early American Ballads, Album M-604, by John Jacob Niles, Mountaineer Tenor.
- (B)—Folk Songs of Central Europe, Album M-586, by Trapp Family Choir.

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Safeguards in Diet

SOME persons believe that the dietary value of bread is proportional to its degree of whiteness. Others regard exclusive use of white bread as indicative of superior breeding and refinement of food habits.

Whole grain breads and cereals are dependable sources of vitamin B complex, iron and bulk, in all of which milled grain products are deficient. Whole grain breads and cereals are also richer in protein and in certain other minerals than are milled varieties. Excellent whole grain breads (wheat and rye) and whole wheat rolls are available in most communities or can be baked at home. When a family has little money to spend on food, considerable amounts of bread and cereal foods are used because of low cost and too little of the more expensive fruits and vegetables and other protective foods are used. Under such circumstances it is highly important that a large part of the bread and cereal food used be of the whole grain varieties.

When one has not been accustomed to eating dark breads, the taste for them can and should be cultivated. In Cleveland school lunchrooms, four to five times as many dark bread and rolls are sold as are white bread and rolls. In many other school lunchrooms, rural and urban, similar results have been obtained through educational programs and through the purchase of superior quality whole grain products only.

There are several reasons why opportunities within the school for the purchase of candy should be reduced to a minimum, if not eliminated. Children like candy and, when left to follow their own judgment, may spend too high a proportion of their meager lunch money for it, thereby reducing the possibilities for purchase of more needed nourishment.

Studies conducted at the University of Michigan dental school over

a period of years of factors relating to the cause of tooth decay have led to the conclusion that the liberal use of candy and highly sweetened food is an important factor in increasing susceptibility to this disease. This was found to be true for the majority of persons. There is, however, a small percentage of persons who are immune to tooth decay. When such persons consume excessive amounts of candy there is no deleterious effect on their natural immunity to dental caries even though their general health may be impaired by this practice.

Candy should never be sold in schools that are located in the country. If the school is located in a city or village and if children are free to patronize local stores and restaurants during the lunch hour,

child buys candy is thereby placed squarely on the shoulders of the parents, where it belongs. Parents are assured that candy cannot be purchased unless money is provided by them for this specific purpose.

Orangeade is made up by mixing a commercially canned orangeade base containing added citric acid with six to ten times its volume of water and with considerable sugar. The beverage is then bottled in half pint milk bottles and distributed by certain dairies. Many school lunchrooms offer it for sale to the children. As made up each 8 ounce bottle probably contains just about 1 ounce of real fruit. School lunchrooms sell this bottled beverage for 4 or 5 cents per bottle. Inasmuch as most children have only from 10 to 12 cents to spend on their whole noon meal, they spend a high proportion of this amount for this small

From studies made by the nutrition service of the Ohio State Department of Health, a number of undesirable practices and policies of school lunchrooms are brought to the attention of those interested in better child health by Martha Koehne, nutritionist, bureau of child hygiene

candy may have to be sold at school. Under such circumstances it is recommended that meal tickets be sold to the children at substantial reductions in price. Some schools offer a 20 per cent saving, selling \$1.25 tickets for \$1 or 75 cent tickets for 60 cents. Other schools offer only 10 or 15 per cent reductions. Under this plan, if children want candy or cookies, cash must be paid for them. This charge cannot be punched off of the meal ticket.

In schools in which this plan has been followed, candy sales have dropped and food counter sales have advanced enough so that increased volume sales counteract the reduced net price for the items sold. Responsibility for whether or not a

amount of fruit plus a little sugar and citric acid.

A similar argument can be used against the sale of soft drinks in public schools. Most of these contain sugar as the sole nutrient, plus flavoring. Children get far too little nourishment from these products for the high proportion of lunch money expended, in contrast with what they get from milk or properly made cocoa or chocolate milk, which usually sells for 3 or 4 cents per serving. It is practically impossible for children to be properly nourished when any one meal per day is regularly deficient.

The recommendation of the nutrition service of the Ohio Department of Health is that schools do not offer



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Potatoes are a staple item for nutritious, economical school meals...

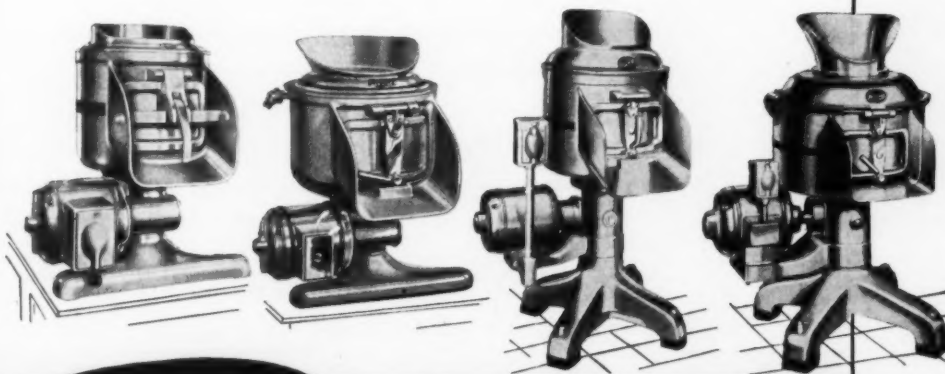
Serve them often—mashed, whipped, riced, escalloped, parsley buttered, browned, creamed, Julienne, potato chips. You can include potatoes in a variety of ways, with each serving representing *economy* instead of a *LOSS*.

Turn peeling waste into SAVINGS; "make potatoes pay"...

Hand peeling may be hacking away as much as 20% . . . 30% . . . or more of your potatoes. Hand peeling wastes much of the nutritional value of the potato in the mineral salts that lie directly beneath the skin. Inferior mechanical peelers sometimes *grind away potatoes* at an alarming rate, too.

Hobart Peelers peel "skin deep"; peel small (No. 2) potatoes as uniformly as large.

Send for free POTATO CHART—see the total saving you can make by (1) saving 12% to 14% or more of the whole potato; (2) buying low-priced No. 2 Grade potatoes for a HOBART Peeler.



● Four sizes of Hobart Potato and Vegetable Peelers (from 8 lb. up to 45 lb. capacity) bring potato peeling savings to every kitchen, whatever its size or requirements. They also peel or clean all root vegetables. Descriptive folder on request.

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- Kitchen Slicers ■ Food Cutters ■ Air Whips
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IN SCHOOL KITCHENS, EACH OF THESE HOBART MACHINES MATERIALLY AIDS IN THE SERVING OF ATTRACTIVE, NUTRITIOUS MEALS AT MINIMUM COST. YOU ARE INVITED TO LEARN EXACTLY HOW EVERY HOBART MACHINE "PAYS."

such products for purchase by children. Fresh fruits, such as apples, oranges or bananas, or 4 ounces of real fruit juice or tomato juice, fresh or canned, should be sold in school lunchrooms in place of these commercial bottled beverages.

If canned fruit juices are used, cans should be purchased of such a size as to meet day by day needs. Juice unsold on a given day should be discarded, for its vitamin C content is destroyed on standing. If fresh juice is used, it should be extracted just before time for sale for the same reason.

Tomato juice, fresh or canned, contains slightly less than half the vitamin C content of fresh or canned orange or grapefruit juice. Canned pineapple juice is a slightly less potent source of vitamin C than is tomato juice.

In many rural homes refrigeration is inadequate during warm seasons with the result that many rural children find it difficult to drink plain milk because it cannot be kept cold enough to be palatable. Parents have

found it necessary to mask the unpleasant odor and taste by addition of various products to milk; among these chocolate paste has been successful.

The demand for chocolate milk has led many dairies to distribute it. In many school lunchrooms sales of bottled chocolate milk exceed sales of plain milk and it is much better for children to buy chocolate milk than no milk. There are several factors, however, that should be discussed in connection with commercial chocolate milk.

The composition of plain milk is controlled by law, both as to cream content, watering and bacterial count. This is not true of chocolate milk. The milk may or may not be pasteurized, but it should be. The milk used may be whole milk, half-skim or skim milk. School and health officials should know the quality of products sold to schools in each community.

At the meeting of food service directors in Rochester, N. Y., a report was made by W. S. Mueller

from Massachusetts State College at Amherst of the results of several years' study of chocolate milk. One of the conclusions of this work has been that the tannin content of cocoa and chocolate lowers the digestibility of the final product. If chocolate milk could be made up commercially so that it contains not more than 1 per cent of cocoa or chocolate, the digestibility of the milk would not be appreciably affected. As sold today, commercial chocolate milks contain far too much cocoa or chocolate to be easily digestible.

Unless dairies can and do distribute chocolate milk made from whole pasteurized milk containing not more than 1 per cent cocoa or chocolate, health officials in each community should work out with school lunchroom managers practical methods by which each lunchroom can make its own chocolate milk for sale to the pupils. Care should be taken in school lunchrooms, also, that hot cocoa made for sale does not contain more than 1 per cent cocoa.

Food Cost Tables—Dairy Products

GRACE S. SAUNDERS

The tables giving the costs of preparing vegetables will be resumed when the data on the series are complete.

BUTTER—Creamery (93 Score)

		COSTS, AS PURCHASED																			
1 lb. (2 C)....	.20	.21	.22	.23	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37	.38	.39	.40
$\frac{3}{4}$ lb. (1 $\frac{1}{2}$ C)....	.15	.1575	.165	.1725	.18	.1875	.195	.2025	.21	.2175	.225	.2325	.24	.2475	.255	.2625	.27	.2775	.285	.2925	.30
$\frac{1}{2}$ lb. (1 C)....	.10	.105	.11	.115	.12	.125	.13	.135	.14	.145	.15	.155	.16	.165	.17	.175	.18	.185	.19	.195	.20
$\frac{1}{4}$ lb. ($\frac{1}{2}$ C)....	.05	.0525	.055	.0575	.06	.0625	.065	.0675	.07	.0725	.075	.0775	.08	.0825	.085	.0875	.09	.0925	.095	.0975	.10
$\frac{1}{8}$ lb. ($\frac{1}{4}$ C)....	.025	.0262	.0275	.0287	.03	.0312	.0325	.0337	.035	.0362	.0375	.0387	.04	.0412	.0425	.0437	.045	.0462	.0475	.0487	.05
$\frac{1}{16}$ lb. (2 T)....	.0125	.0131	.0137	.0143	.015	.0156	.0162	.0168	.0175	.0181	.0187	.0193	.02	.0206	.0212	.0218	.0225	.0231	.0237	.0243	.025
(1 T)....	.0062	.0065	.0068	.0071	.0075	.0078	.0081	.0084	.0087	.009	.0093	.0096	.01	.0103	.0106	.0109	.0112	.0115	.0118	.0121	.0125
$\frac{1}{32}$ T)....	.0031	.0032	.0034	.0035	.0037	.0039	.004	.0041	.0043	.0045	.0046	.0048	.005	.0051	.0053	.0054	.0056	.0057	.0059	.006	.0062
		COSTS PER SERVING CUT																			
48 cuts to lb....	.0042	.0044	.0046	.0048	.005	.0052	.0054	.0056	.0058	.006	.0063	.0065	.0067	.0069	.0071	.0073	.0075	.0077	.0079	.0081	.0083
52 cuts to lb....	.0038	.004	.0042	.0044	.0046	.0048	.005	.0052	.0054	.0056	.0058	.006	.0062	.0063	.0065	.0067	.0069	.0071	.0073	.0075	.0077

Butter may be purchased in 1 and 2 lb. bricks; 1 and 2 lb. rolls, and 30, 60 and 65 lb. tubs.

MILK—Fresh, Bulk (in Cans)

		COSTS, AS PURCHASED																			
10 qts. (1 can).....	2.00	2.20	2.40	2.60	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60			
4 qts. (16 cups).....	.20	.22	.24	.26	.30	.32	.34	.36	.38	.40	.42	.44	.46	.48	.50	.52	.54	.56			
2 qts. (8 cups).....	.10	.11	.12	.13	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.28			
1 qt. (4 cups).....	.05	.055	.06	.065	.075	.08	.085	.09	.095	.10	.105	.11	.115	.12	.125	.13	.135	.14			
$\frac{1}{2}$ qt. (2 cups).....	.025	.0275	.03	.0325	.0375	.04	.0425	.045	.0475	.05	.0525	.055	.0575	.06	.0625	.065	.0675	.07			
$\frac{1}{4}$ qt. (1 cup).....	.0125	.0138	.015	.0163	.0188	.02	.0213	.0225	.0238	.025	.0263	.0275	.0288	.03	.0313	.0325	.0338	.035			
$\frac{1}{8}$ qt. ($\frac{1}{2}$ cup).....	.0063	.0069	.0075	.0081	.0094	.01	.0106	.0113	.0119	.0125	.0131	.0138	.0144	.015	.0156	.0163	.0169	.0175			

These tables furnish a simple method of comparing the cost per serving of foods in various forms. It was not possible to include labor costs involved in preparing some of the foods, hence, the tables should be corrected accordingly. For a more detailed explanation of the tables, see page 76 of the March issue of *The Nation's Schools*.

DOUBLE-DUTY DISHWASHERS

For Medium-Size Kitchens!

Colt Autosans RC-2 and RX-2
combine small-machine economy
with plus-capacity for rush times

HERE are genuine Colt Autosans especially engineered to perform two types of service *equally well* in the medium-size kitchen! First, they give you the economy of a small machine for normal daily volumes of tableware. Then, when extra crowds of diners must be served, they'll easily handle the overload . . . put dishes back into service clean and fast!

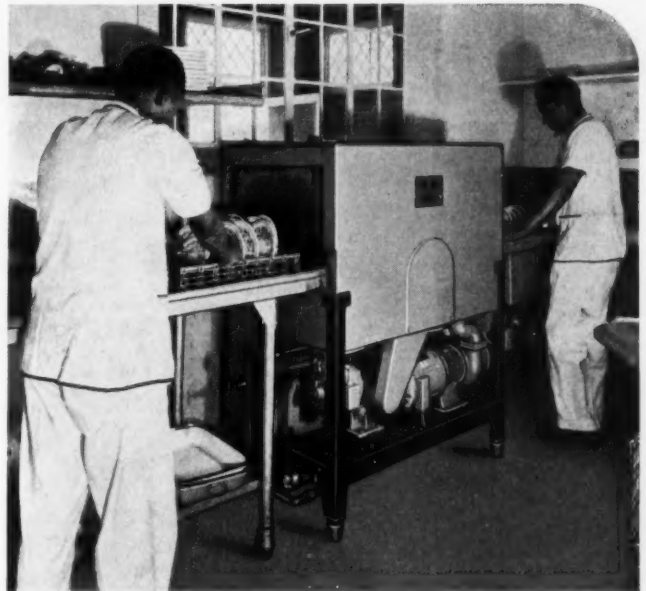
SPEEDY, FLEXIBLE OPERATION

Requiring only 42" x 27" of floor space, these compact machines are convenient for use with either one or two operators. And, since they rinse one trayful of tableware while washing another, they cut dishwashing time.

FAMOUS FEATURES, MODERATE COST

All the extra quality of a Colt-built machine is available in these medium-size dishwashers without premium prices! The manually operated RX-2, handling tableware for 500 people, costs no more than an efficient *small* machine. The conveyor-type RC-2, with capacity for 750 people, costs only slightly more. Both include typical Colt features such as: fixed spray tubes *above and below* the tableware; extra-capacity Colt-built pumps with extra-power motors; higher pressure and greater volume of wash solution; large capacity tanks; automatic rinse spray trip; available in stainless steel or galvanized iron.

Write today for full details of these and other Colt Autosans that will cut costs in your kitchen. There are 16 small, medium and large models available. Colt's Patent Fire Arms Mfg. Co., Autosan Machine Division, Hartford, Connecticut.



Conveyor-type RC-2, rated for 750 table services, has reserve capacity to handle 1,000 or more.



Manually-operated RX-2, with normal rating of 500 table services, easily handles more in rushes.

MAIL THIS COUPON NOW!

Colt's Patent Fire Arms Mfg. Co.
Autosan Machine Division
Hartford, Conn.

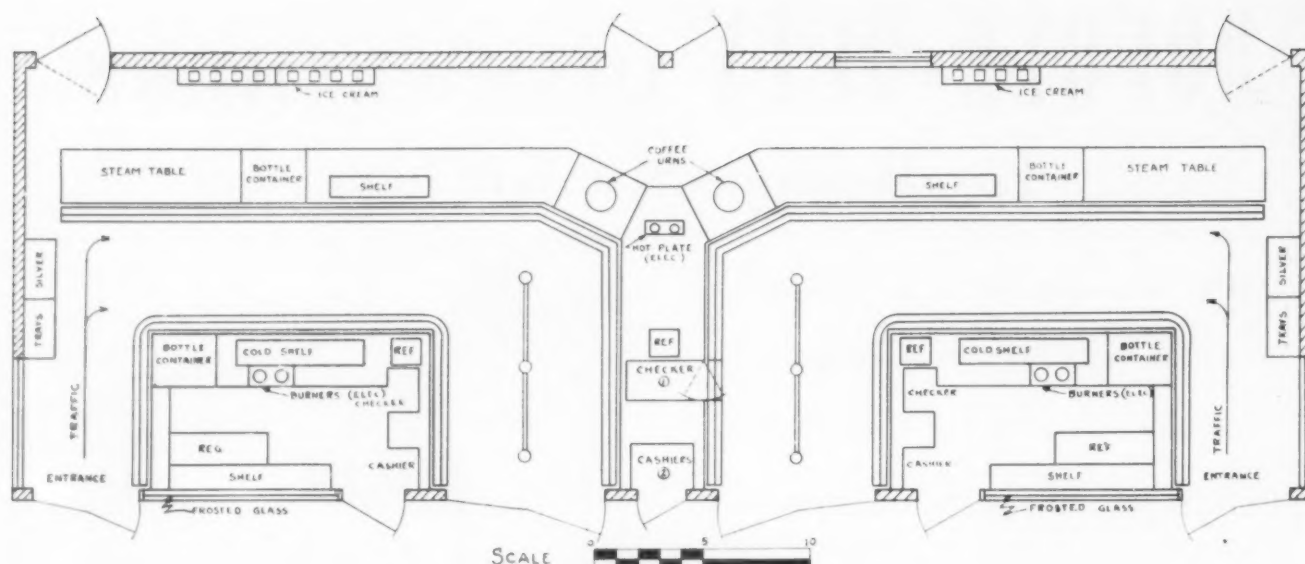
Please send full information on the Colt Autosans that will give me most efficient dishwashing. I serve approximately _____ persons per meal.

Name _____

Address _____

City _____ State _____

COLT AUTOSAN
DISH, GLASS AND SILVER WASHING MACHINES



Layout of service tables, Collinwood High School cafeteria, Cleveland. There are two hot and two cold food service units.

Cafeterias in Cleveland

HELEN HOBSON

Cafeteria Director, Lincoln High School, Cleveland

IN CLEVELAND there are 30 cafeterias in the high schools and junior high schools. Three beautiful new buildings which are to have modern cafeterias are being built. At the present time, however, the arrangement of equipment at John Marshall High School is one of Cleveland's best.

This cafeteria serves a daily average of 1400 in one and one half hours. There are four lunch periods of twenty-two or twenty-three minutes each, running from 11:15 a.m. to 12:45 p.m. A thirty minute period would be better.

The lunchroom is located on the second floor, an excellent location from the standpoint of cafeteria service. It is also located in a wing of the building just two stories high with skylights, which give excellent light and ventilation. There are two large openings into the cafeteria, one used as an entrance and the other, as an exit, so there is no confusion or crossing of lines in entering and leaving the dining room. Pupils enter the service unit at the two ends and come out at the center. There are two counters and two steam tables.

The enrollment is 2162 and the dining room seats 554. The capacity of the room is 650, but that number of seats are not needed at present.

All the counters are of stainless steel. The floor in the dining room

is of hard maple, which is excellent, but expensive to keep clean. The kitchen has a composition flooring. In the new school kitchens, quarry tile is to be used. Counters are heated by steam and gas burners.

The dishwashing room is a separate unit, 16 by 14½ feet, with a double sink for washing trays. A hopper room is a great asset, making it possible to keep a much neater kitchen. Two gas bake ovens are in this kitchen and two units of gas range, which are adequate because there is an A3 deck steamer, one 50 gallon steam jacketed kettle and one trunion 5 gallon kettle. In the new school, one 30 gallon steam jacketed kettle and two smaller ones are to be installed.

There are two double and two single sinks in this kitchen. If one of the single sinks were a double, it would be adequate.

At Collinwood High School, we have a particularly good location and good equipment for the so-called cold counters. There are four food service units, that is, two hot and two cold, located close together. These units are separated from the dining room by a series of French doors.

Pupils enter at either end of the service counters and come into two

wide U-shaped aisles, 7½ feet wide. On one side of this wide aisle, next to and adjoining the kitchen, are the steam table and counters with all the cafeteria assortment of salads and desserts. On the other side of this aisle, with its back to the dining room, is the cold counter. Here from two large electric hot plates at each counter a variety of hot sandwiches is served. There are an electric refrigerator for ice cream and a large iced compartment for milk and chocolate milk.

Glass shelves display an assortment of cold sandwiches and cookies. No candy is sold.

There are four checkers and four cashiers. Patrons of the two cold counters and the two hot counters all come out into the dining room at the center of the service unit. Here about 3000 sales are registered in two and one quarter hours from all counters.

This system keeps all the food service close together. It makes it possible for the pupil who buys just a bottle of milk to see some of the hot food, salads and desserts that are going out on trays and are assembled on counters just across the aisle from where he is making his purchase. It is economical, orderly, systematic and highly satisfactory.



BLACKBOARDS
DON'T NEED TO BE

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Quantity Food Service Recipes*

Reviewed by S. MARGARET GILLAM

THIS collection of more than 1100 recipes is the most outstanding single contribution to its members that has been made by the American Dietetic Association. The author, distinguished for her administrative work and knowledge of food production, supervised the checking and retesting of all recipes before submitting them for publica-

tion. A special committee then reviewed the form of the recipes and approved the final arrangement.

The contents are enlivened by innumerable humorous and apt illustrations which are delightful and reminiscent of the English past when food was such a pleasurable pastime for the gourmet. Sprightly cartoons by Jean McConnell add an interesting

note to a modern presentation of standardized up-to-date recipes.

Favorite or unusual recipes from leading dietitians in hotels, restaurants, hospitals, colleges, schools and industry are included, representing the best cooking from New England to New Orleans and California. Ingredients are listed in the order of combining and are given in weights or measures most practical for institutional use. The procedures are stated in logical order and concisely but no essential needed for clarity is omitted. The yield in quantity and servings for each recipe is given as well as the size and often the kind of equipment used in production. Directions for making coffee in an urn, tea brewing with individual tea bags and the procedure in machine mixing of butter cakes are a thoughtful inclusion.

Contents are arranged as follows: appetizers and relishes; beverages; bread and rolls; cakes, cookies and small cakes; desserts; doughnuts; fish and sea food; icings, fillings and sweet sauces; luncheon dishes; meats and poultry; pies and pastries; salads; salad dressings; sandwich fillings; sauces: meat and fish; soups, and vegetables. In addition, there are tables of quantities and yields and approximate or average weights of various commodities.

At the beginning of each section there is an alphabetical and well-classified listing of recipes to follow. This facilitates ready reference and is suggestive for menu planning. The book is so logically arranged that the standard page index is omitted.

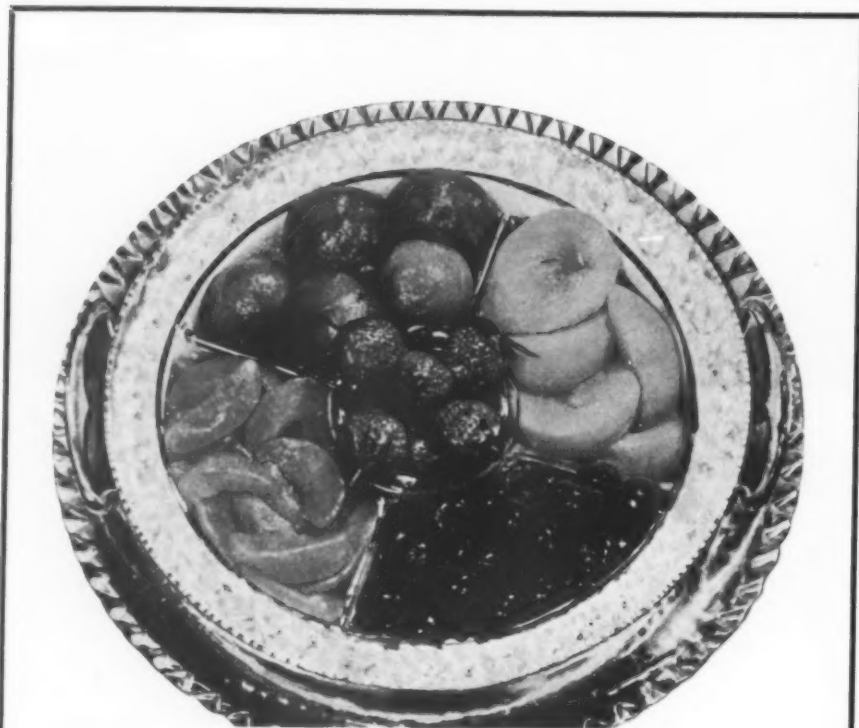
This book should prove invaluable to dietitians and food managers in school lunchrooms.

*Compiled by the Administration Section of the American Dietetic Association under the direction of Adeline Wood, B.S., chairman. Philadelphia: J. B. Lippincott Company, 1940. Pp. 436. \$4.

FOOD FOR THOUGHT

Sells Whole Cereal Bread

• Sandwiches made with two slices of whole cereal bread may not be popular. This is true, at least, in Rochester, N. Y., according to Constance C. Hart. "However," says Miss Hart, "the children never question it when we use two slices of whole cereal bread for salmon and tunafish sandwiches. I think they would eat those if they were made of hard tack."



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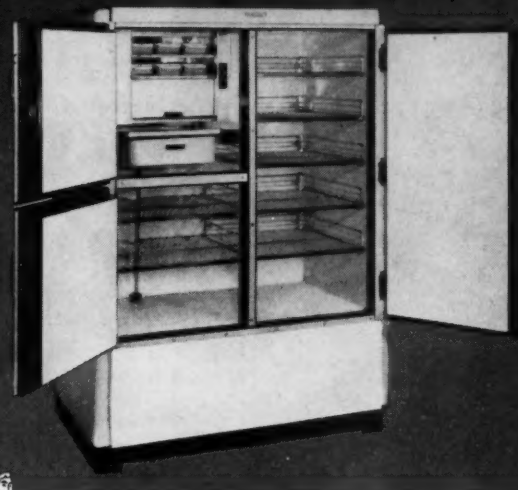
The NATION'S SCHOOLS, June 1940

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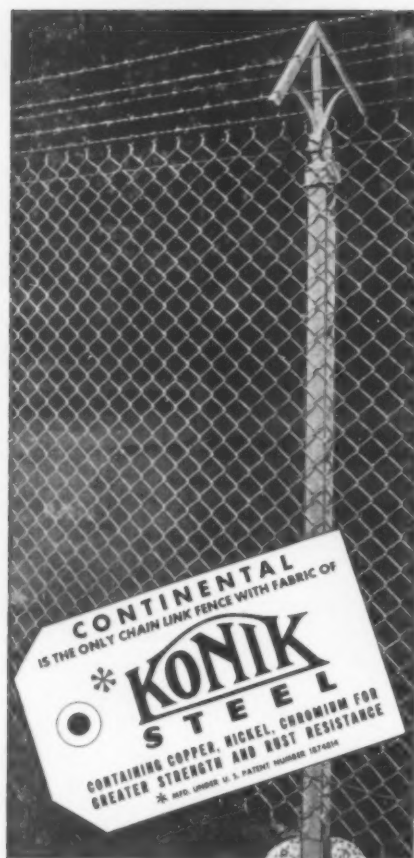
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News in Review

Administrators Don't Go Fishing

When school children and teachers vacate school buildings in June, the school administrator, freed from the routine problems of the scholastic organization, is able to take stock of the physical plant, to plan and prepare for the coming term. Seldom are school administrators away from their desks more than six weeks during the entire year. The large majority are on the job at least half the summer. While business men go fishing, the school administrator is on the job during the summer.

The NATION'S SCHOOLS recently conducted an inquiry among typical school administrators in all parts of the country. The foregoing facts were brought out in the answers to the two questionnaires sent out. June, July and August are the peak months in which school administrators do school purchasing.

Letter A asked four questions:

1. During what months are orders placed for most of your building equipment? Seventy-six per cent of all replies mentioned at least one of the three months, June, July and August, as a major buying period for building equipment.

2. During what months are orders placed for most educational supplies? Sixty-four per cent of all replies mentioned either June, July or August as a major buying period for educational supplies.

3. During what months are the most orders placed for maintenance supplies? Sixty-one per cent of all replies mentioned one of the three summer months as a major buying period for maintenance supplies.

4. For how many weeks during the year are you away from your desk? When? Only 29 per cent of those replying were away from their desks more than six weeks during the entire year, the large majority being on the job at least half the summer.

Letter B also asked four questions:

1. Approximately what per cent of building equipment is ordered during the months of June, July and August? Eighty-seven per cent of those replying do 40 per cent or more of their total yearly buying of building equipment in this quarter.

2. Approximately what per cent of educational supplies is ordered during each of these months? Eighty-six of those replying do 40 per cent or more of their total yearly buying of educational supplies in this quarter.

3. Approximately what per cent of maintenance supplies is ordered during

each of these months? Eighty-three per cent of those replying do 40 per cent or more of their total yearly buying of maintenance supplies in this quarter.

4. For how many weeks during the summer are you away from your desk? Replies to the question indicated that 83 per cent of those answering had vacations of six weeks or less during the summer, showing that by far the majority of school administrators are on the job for at least half the summer vacation period.

Pasadena Tragedy

Verlin Spencer, junior high school principal of South Pasadena, Calif., suffered a persecution complex. As a result, he shot six school attachés before turning the pistol on himself.

Slain were George C. Bush, 62 years old, superintendent of schools; John E. Alman, 50, for twenty-five years principal of the South Pasadena-San Marino High School; William Speer, 43, business manager of the combined school district; Victor V. Vanderlip, 45, manual arts and printing instructor at South Pasadena High School, and Ruth B. Sturgeon, 45, art instructor at the junior high school.

The sole survivors are Dorothea Talbert, 30, secretary of Superintendent Bush, and Spencer himself.

Spencer, 38 years old, went berserk at an executive session of board of education officials after being told his junior high school contract would not be renewed. About a year ago Spencer suffered a nervous breakdown and was given a month's leave of absence from his teaching post.

MEETINGS

A.A.S.A. to Atlantic City in 1941

The A.A.S.A. announced last month, following a meeting of its executive committee, that Atlantic City, N. J., has been chosen for the organization's 1941 convention to be held February 22 to 27. With invitations from both Chicago and Atlantic City, the executive committee chose the latter, where a successful convention attended by 12,600 educators was held in 1938.

W.F.E.A. Conference Postponed

Directors of the World Federation of Education Associations have announced that they will not hold a conference in the Philippine Islands this August as planned because of present world con-

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ditions. No regional conference will be held this year.

A.A.H.P.E.R. Attracts 3500

The American Association for Health, Physical Education and Recreation, one of the new departments of the National Education Association, attracted an attendance of 3500 persons to its convention in Chicago, April 24 to 27. This was a joint conference with the Mid-West Physical Education Association.

Hiram A. Jones, New York State Education Department, succeeds Margaret Bell, University of Michigan, as president of the association for the coming year. Nancy Duggan, director of women's athletics, Texas College for Women, Denton, was named president elect for 1941-42.

Vice presidents elected were: recreation, Vern Hernlund, Chicago Park District; health, Ethel Mealey, Oregon State Board of Health, and physical education, Paul R. Washke, University of Oregon.

Future convention cities were chosen for the next four years as follows: 1941, Atlantic City; 1942, New Orleans; 1943, Cincinnati, and 1944, Seattle.

AWARDS

Commercial Program Wins Award

The Cavalcade of America, commercial radio program, was awarded first prize by the Institute for Education by Radio for the best dramatic program designed for general use by adults at the eleventh annual meeting of the Institute at Ohio State University recently. The citation was given for the "Abraham Lincoln-War Years" broadcast during February.

The Cavalcade series this year employed two well-known authors, Carl Carmer and Marquis James, and Dr. Frank Monaghan of Yale University to write and plan the programs.

Citations for Education Research

The committee on awards of the American Educational Research Association has announced the following citations for outstanding contributions to educational research based upon studies listed in the 1938 volume of the *Review of Education Research*:

Field of psychology and methods in high school and college: William S. Gray and Bernice E. Leary, "What Makes a Book Readable?" University of Chicago Press, 1935.

Field of finance and business administration: Paul R. Mort, "Federal Support for Public Education," Teachers College, Columbia University Press, 1936.

Field of psychological tests: Horatio H. Newman, Frank N. Freeman and

Karl J. Holzinger, "Twins: A Study of Heredity and Environment," University of Chicago Press, 1937. Also, Edward L. Thorndike, "Psychology of Wants, Interests and Attitudes," D. Appleton Century Company, 1935.

The committee on awards includes Carter Alexander, Newton Edwards and Walter S. Monroe, chairman.

SUMMER COURSES

School for Custodians

During the week of June 11 to 14 the fifth annual custodians' school will be held on the campus at Southern Illinois Normal University, Carbondale. L. C. Helm, maintenance engineer for Columbia University, will be on the instructional staff.

Cafeteria Short Course

The fourth school cafeteria managers' short course will be held on the campus of Oklahoma A. and M. College, Stillwater, June 10 to 14. The course is given by the school of home economics in cooperation with the department of trade and industrial education and the department of home economics education of the division of vocational education of the Oklahoma State Department of Education. The program will stress nutrition and how to prepare and serve quality food when it must be prepared in quantity.

Workshop for Teachers at Omaha

The University of Omaha summer session, June 10 to July 16, will sponsor a workshop for teachers under the direction of Dr. A. J. Foy Cross, specialist in curriculum planning, and Dr. Donald T. Tope, specialist in guidance.

Radio Courses at Wyoming

The University of Wyoming will offer three radio courses during its 1940 summer session beginning June 17. H. A. Engel, director of the Wisconsin College of the Air, will conduct the work. A feature of the summer will be a radio conference on July 10, conducted jointly by the Federal Radio Education Committee and the university.

Summer Radio Workshop

New York University's seventh annual six weeks' summer radio workshop will open July 1. This year's workshop will be divided into three groups which will have regularly scheduled opportunities to produce programs in the university's studios, according to Douglas Coulter, director. Two new instructors in script writing have been appointed: A. Murray Dyer, script writer for the "American School of the Air," and Robert A. Smith of the foreign news department of

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the *New York Times*, who acts as script writer and commentator for "This Living World." Radio production will be taught by Earle Lewis McGill, casting director of C.B.S. Studio production groups will be directed by Philip Cohen, production director of the radio division of the U. S. Office of Education.

Adult Education Workshop

Dr. Russell M. Story, president of Claremont Colleges, Claremont, Calif., has announced that Prof. and Mrs. Harry A. Overstreet will be members of the staff of an Adult Education Workshop to be held on the campus from July 8 to

26. The workshop is being established with the assistance of the Carnegie Corporation through the American Association for Adult Education and of the American Council on Education through its Commission on Teacher Education.

Secondary Postgraduate Seminar

Twenty-five New York state school officials will make an intensive study of the problems of postgraduates in the high schools by means of a seminar being arranged for the third week in July by Dean Harry S. Ganders of the school of education, Syracuse University. Those who will lead discussions include:

Dr. Floyd W. Reeves, American Youth Commission; Dr. Howard M. Bell, who made the study of Maryland youth for the American Council on Education; Dr. Malcolm S. MacLean, director, General College, University of Minnesota; Dr. Thomas R. Cole, University of Washington; Dr. David Snedden, Palo Alto, Calif.; Dr. Doak Campbell, George Peabody College for Teachers.

More than a dozen conferences are planned for July 18 to 20 for students of the school of education and administrative officers and teachers of central New York.

RADIO

To Continue "Human Adventure"

"The Human Adventure" series, presented by the University of Chicago and C.B.S., dramatizing research by university scholars in various fields, will be continued indefinitely on its present schedule every Saturday from 5:30 to 6:00 p.m. (E.D.S.T.). The program was originally scheduled to go off the air the last of April and was continued because of popular demand from listeners. Presidents of many of the country's leading universities and colleges praised continuation of the program: President Charles Seymour of Yale; Dr. Guy Stanton Ford, Minnesota; President H. B. Wells, Indiana, and the presidents of Clark University, Cornell, Kansas, Iowa State College and the universities of Nebraska and Kansas.

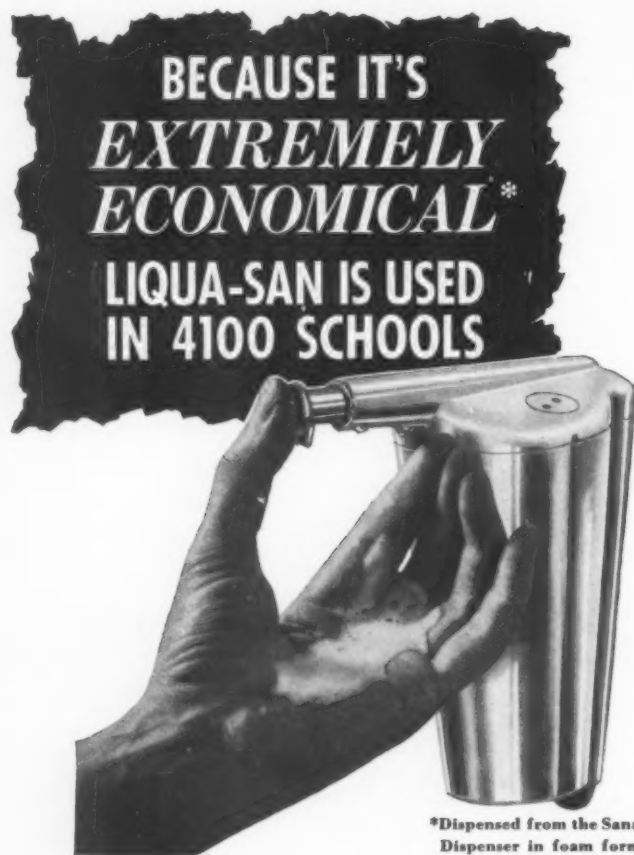
New Government Program

A new series of programs devoted to the privileges, responsibilities and possibilities of the democratic way of life was launched over the N.B.C. red network in May. Entitled "I am an American," the weekly series will be presented at 2 p.m. on Saturdays (E.D.S.T.). The program is sponsored by the immigration and naturalization service of the U. S. Department of Labor.

School of the Air on Tour

More than one million school children in every state will be afforded an opportunity during the 1940-41 school year to witness a visual production of the "American School of the Air." Plans have been completed for Junior Programs, Inc., to include several of its plays in its repertoire next fall. Casts of adult professional actors will stage these plays before pupil audiences in school auditoriums in every section of the United States.

The plays will have a Latin American theme in line with the C.B.S. plan to extend its air school to all countries of the Western hemisphere. Thus far a total of nine countries has accepted the



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invitation to participate in the new "School of the Air for the Americas." Argentina, Chile, Panama and San Salvador are the latest countries to signify their intentions of cooperating with C.B.S. Acceptances previously had been received from Mexico, Brazil, Ecuador, the Dominican Republic and Canada.

The National Catholic Educational Association has been added to the list of major groups throughout the country that have endorsed classroom use of these broadcasts.

VISUAL EDUCATION

Reporting Research by Films

Reporting educational experiments through documentary films instead of pamphlets or articles was demonstrated recently at New York University when the Educational Film Institute presented the first sections of two motion pictures describing experiments in applied economics now in progress under grants by the Alfred P. Sloan Foundation.

The studies are parts of a group of experiments in changing educational methods now being conducted in various rural communities by state universities with the aid of the Sloan Foundation; they are coordinated by Dr. Harold F. Clark of Columbia University. The purpose of the studies is to discover whether levels of living in low income communities can be improved when the public school curriculum is built around the economic necessities of food, clothing and shelter.

The sections of the pictures presented only introductions to the experiments and served to state the basic problems that the experimenters hope to solve. The sections yet to be made and added to the films will be designed to show what happens to a community when the schools begin to teach in terms of the needs of the people and when ways to improve food, clothing and shelter are demonstrated in the schoolroom.

The two films demonstrated two different documentary technics. "And So They Live," the longer of the two films, runs for twenty-five minutes. It was executed by John Ferno and Julian Roffman. Mr. Ferno was photographer of "Spanish Earth" and co-director of "The 400,000,000." Mr. Roffman is the producer of "Getting Your Money's Worth," a film series on consumer problems. The film uses natural sound and dialog against a background of an original musical score by Lee Gron. It shows children in a rural mountain school reciting medieval ballads and hearing about dikes in Holland and Swiss mountain scenery, while their parents raise crops on wornout soil. "The Children Must Learn," which

runs for thirteen minutes, like the other film, was made in a rural mountain community and presents the same problems. This film was directed by Willard Van Dyke, who was cameraman for Pare Lorentz' "The River" and co-director with Ralph Steiner of "The City."

"The original idea in making these pictures was to put them in vaults for the present and add to them from time to time as the studies developed, releasing them when the experiments themselves showed positive results," said Harold S. Sloan, director of the Sloan Foundation. "The pictures have proved so interesting, however, both from the standpoint of technical documentary film production and the education story revealed that the original policy may be modified." There are no definite plans at this time for distribution of these films.

The Educational Film Institute was established at N.Y.U. last July to produce and distribute motion pictures on social science subjects with special reference to economic problems.

Film Releases

Puritans of Massachusetts Colony—The life, customs, government, religion, education, homes and occupations of the Puritans in Massachusetts about 1645 are all clearly depicted in this historic film. Characters are portrayed by capable costumed actors and dialog, as well as narrative, gives greater realism to the subject. 2 reels. 16 mm., sound. For rental and for sale. Audio-Film Libraries, 661 Bloomfield Avenue, Bloomfield, N. J.

The First Democracy, The Teddy Bears' Picnic, Dawn of Iran, Enough to Eat, The Case of Charlie Gordon—A contribution to world-wide understanding of peoples and their culture in various lands is being set in motion by the International Film Center, Inc., through an international exchange of films. From time to time films from practically every country in the world will be released, some of which already have been appraised by the American Council on Education. The foregoing films are ready for distribution by Walter O. Gutlohn, Inc., 35 West Forty-Fifth Street, New York. The films in their respective order were obtained from Switzerland, Australia, Iran, England and Canada and are available in 16 mm., sound.

Loaf With Maca—A film on home baking, to be given at the New York World's Fair, is available for showing before cooking schools, home econom-

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3. What type of screen mounting is the most practical for an auditorium to assure the longest screen life?
4. In determining the size of the screen, what other factors besides the length of the throw should be taken into consideration?
5. Where a screen must be used in several class rooms and desk space is limited, what type of mounting would you select?
6. What 5 precautions should be taken in the care of roll screens to get the longest service from them?

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ics classes and women's organizations. The new picture portrays the ease of bread making when Maca yeast is used. 16 mm., sound. Ten minutes' running time. Recognized groups may book the picture without cost, other than payment of express charges, by request to Northwestern Yeast Company, 1750 North Ashland Avenue, Chicago.

Your Life Work—This film series constitutes a complete vocational guidance course. The first series includes a double reel on "Finding Your Life Work," then standard 400 foot reels on journalism, radio and television, automotive service, dairy farming, the electrician, general farming, the wood-worker, forestry, drafting, retail selling, engineering, nursing, accounting, getting and holding a job. Other series are planned to cover some sixty industries. This new instructional tool includes guides for teachers, a textbook and analysis sheets to be filled out by the pupil after viewing each film. Arthur P. Twogood, associate professor of vocational education at Iowa State College, devoted eight years of special research to the preparation of the series. The films are available in 16 mm., sound, and are being produced and distributed by Vocational Guidance Films, Inc., Des Moines, Iowa.

Films in Review

THE LIFE HISTORY OF THE GARDEN SPIDER. 16 mm., sound. 1 reel. 11 minutes. For sale or rent by Edited Pictures System, Inc., 330 West Forty-Second Street, New York.

Rating: age level, junior-senior high school; quality of photography, good; selection of scenes, excellent and accurate; quality of sound, excellent; teaching value, wide range.

Illustrates the life and habits of some of the common spiders found around the garden and is an effective aid in showing how smaller animals live and struggle for survival, as well as a clear, concise picture of the life of the garden spider. Good animated drawings but should have included an animation of the functioning of the spinnerets.

Picture is rated high for any group because of the manner in which it is presented and because of the wide range for teaching purposes. It is highly recommended.

CRATERS OF THE MOON. 16 mm., sound. 1 reel. 9 minutes. For sale or rent by Bell and Howell Company, 1801 Larchmont Avenue, Chicago.

Rating: age level, junior and senior high school; quality of photography, ex-

cellent; selection of scenes, fair; quality of sound, good; teaching value, moderate, because of possibility of confusion.

Opens with picture of large astronomical telescope and craters and mountains of the moon as they would supposedly appear through such a telescope. A rocket ship trip to the moon is supposed by a party of explorers who then find their way over the moon's surface, finding various volcanic regions, quiet lava flow and a rough ropey surface of hardened rocks. Some good shots are of caves in hardened lava and of the desolate character of the country. Photography is of regions on earth that are similar to

those such as an exploring party might find on the moon.

Title is misleading, since one would infer that volcanoes are actually present on the moon and that there is no doubt but that the irregularities of the moon's surface are due to just that kind of action. Although the scientific possibilities of reaching the moon by rocket were discussed, no mention was made of need for special breathing apparatus. Therefore, for classroom use, the film should be recaptioned as an interesting film dealing with volcanic action.—Reviewed by a committee comprised of H. EMMETT BROWN, ROSE WYLER, F. T. HOWARD,

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N. ELBERT BINGHAM and HUBERT M. EVANS, *all of Teachers College, Columbia University*; ALTON I. LOCKHART of the *Horace Mann School*, and HENRY ALDERFER of the *Dalton School*.

NAMES IN NEWS

Superintendents

CHARLES E. TEACH has been elected superintendent at San Luis Obispo, Calif., for the fourth term.

HILMAR A. WAHL, head of the high school science department at Aberdeen, S. D., has been elected superintendent of schools at Ipswich, S. D.

H. MORTON JEFFORDS, superintendent at Wallingford, Conn., has been appointed administrator at Fairfield, Conn.

JESSE A. OWENSBY, superintendent of schools at Verden, Okla., for the last six years, has been chosen superintendent of schools at Lindsay, Okla., succeeding W. F. BREWER, resigned.

BRUCE MILLER, principal of Vina Danks Junior High School, Ontario, Calif., has been appointed city superintendent at Ontario to succeed the late CLAUDE W. RANDALL, who was killed in an accident recently.

DR. WILLIAM R. ODELL will be the assistant superintendent in charge of secondary schools at Oakland, Calif., suc-

ceeding WILLIAM F. EWING, who will assume the superintendency at Oakland September 1.

W. HOWARD VANDERHOEF, superintendent of schools at Canandaigua, N. Y., has been chosen superintendent of schools at Hamburg, N. Y.

ARTHUR H. TOWNE, superintendent at Burlington, Wash., was appointed superintendent at Auburn, Wash., to succeed E. A. OAKLEY.

WILDEN J. MOORE, high school principal, Girard, Ohio, for the past year, has been named superintendent at Girard. He succeeds E. O. TRESCOTT, who is retiring.

L. B. KAYWOOD has been named superintendent of schools at Waynoka, Okla. Mr. Kaywood has been superintendent at Supply, Okla., for the last eight years.

PAUL DIAS, principal of Alviso School, Alviso, Calif., for the last sixteen years, has accepted appointment as superintendent of San Juan Bautista Schools, San Juan Bautista, Calif. He succeeds ALTON SCOTT, who resigned to become principal of Livermore School, Livermore, Calif.

ROBERT H. CHRISTY, business executive of the schools at Lima, Ohio, has been appointed superintendent at Delphos, Ohio, for three years, to succeed E. W. BELL, who is retiring.

P. H. COOMBS, for eleven years superintendent of schools at Hecla, S. D., will

become superintendent at Kimball, S. D., next fall.

Principals

BERNARD W. SHAPER, principal of Redlands High School, Redlands, Calif., for nine years, has accepted the position as principal of the high school at Chico, Calif. GLEN MURDOCK, principal of the junior high school at Redlands, will be advanced to the high school principalship. His place in the junior high school will be taken by PAUL AXTELL, science teacher and dean of boys.

A. EDSON SMITH has been named principal of Galesburg High School, Galesburg, Ill., succeeding FRED F. ROBERTSON, resigned. For the last nine years Mr. Smith has been principal of the Anna-Jonesboro Community High School, Anna, Ill.

ROBERT B. SHAFER, vice principal at Delanson High School, Delanson, N. Y., for the past few years, has been named principal of the school. HOWARD J. LAMBRECHT, faculty member, will become vice principal.

CHARLES E. O'CONNOR, teacher at Bangor High School, Bangor, Me., has been appointed principal of Winter Harbor High School, Winter Harbor, Me.

O. V. BRUNER, who has been principal of the high school at Midway, Ala., for the last year, has been elected principal

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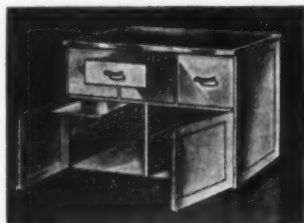
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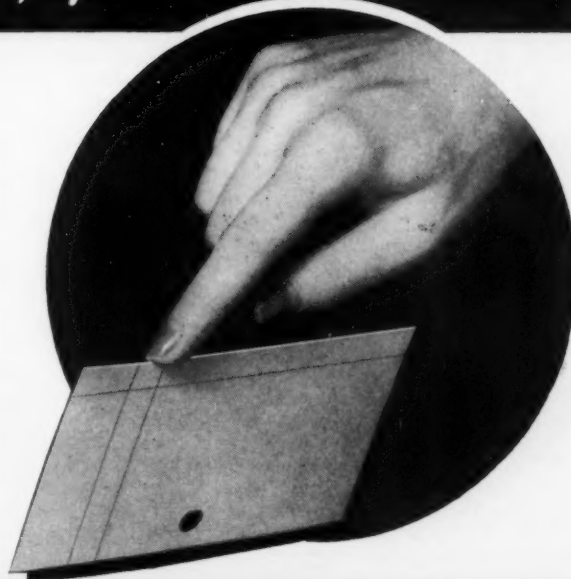
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of the Glencoe High School, Glencoe, Ala. He succeeds J. L. SOLLEY, who recently was elected principal of the Marshall County High School, Guntersville, Ala.

REV. DONALD G. L. HENNING, rector of Christ Church, St. Paul, Minn., has been appointed headmaster of Shattuck School at Faribault, Minn. He succeeds JAMES L. GUERNSEY, resigned.

JAMES A. MORROW, a member of the faculty of Abington Friends' School, Jenkintown, Pa., has been appointed principal of Friends' Community School, West Chester, Pa., succeeding JEAN FRASER.

THEODORE M. CHASE, a teacher of mathematics at the Huntington School for Boys, Boston, has been appointed principal of the new Westwood Junior-Senior High School, Westwood, Mass., to be opened in September.

HARRY M. MCPHERSON, for the last five years principal of the St. Helena High School, St. Helena, Calif., has been appointed to succeed EARLE E. CRAWFORD as principal of the Napa Senior High School, Napa, Calif.

RONALD H. SMITH has been appointed principal of the high school at Fultonville, N. Y., succeeding GUY F. PAGE, resigned.

RICHARD W. HAYES, acting principal, Dunkirk High School, Dunkirk, N. Y.,

Coming Meetings

June 3-6—Special Libraries Association, Indianapolis.
June 23-28—American Home Economics Association, Cleveland.
June 30-July 4—National Education Association, Milwaukee.
July 1-3—National Council of Teachers of Mathematics, summer meeting, Milwaukee.
Oct. 9-12—National Council on Schoolhouse Construction, Chicago.
Oct. 10-12—Utah Education Association, Salt Lake City.
Oct. 14-18—National Association of Public School Business Officials, Detroit.
Oct. 17-19—Wyoming Education Association, Casper.
Oct. 20-24—American Dietetic Association, Pennsylvania Hotel, New York City.
Oct. 23-25—North Dakota Education Association, Grand Forks.
Oct. 24-25—Minnesota Education Association, St. Paul.
Oct. 24-26—Colorado Education Association, Denver, Pueblo and Grand Junction.
Oct. 25-26—Maryland State Teachers Association, Baltimore.
Nov. 1-2—Kansas State Teachers Association, Topeka, Salina, Hays, Garden City, Wichita and Parsons.
Nov. 6-9—Missouri State Teachers Association, Kansas City.
Nov. 6-9—West Virginia State Education Association, Huntington.
Nov. 7-8—Arkansas Education Association, Little Rock.
Nov. 7-9—Iowa State Teachers Association, Des Moines.
Nov. 7-9—Arizona Education Association, Tucson.
Nov. 8-11—New Jersey State Teachers Association.
Nov. 15-16—Idaho Education Association, Boise.
Nov. 21-23—Texas State Teachers Association, Fort Worth.
Nov. 24-27—South Dakota Education Association, Aberdeen.
Nov. 25-26—House of Delegates, New York State Teachers Association, Syracuse.
Feb. 22-27, 1941—American Association of School Administrators, Atlantic City, N. J.

during the illness of HARRY D. LIGHTY, has been appointed principal for the coming year.

A. CAMERON MANN, for ten years head of the junior school of the Arnold School, Pittsburgh, has been appointed headmaster of the Scranton Country Day School, Scranton, Pa.

JAMES A. ANDERSON JR., principal of Putnam Junior High School, Ashland, Ky., has been promoted to the post of principal of the Ashland Senior High School. He will replace EDGAR K. SMITH, who recently resigned.

RAYMOND E. BASSETT, instructor at Goddard College, Plainfield, Vt., has been engaged as principal at Chelsea, Vt.

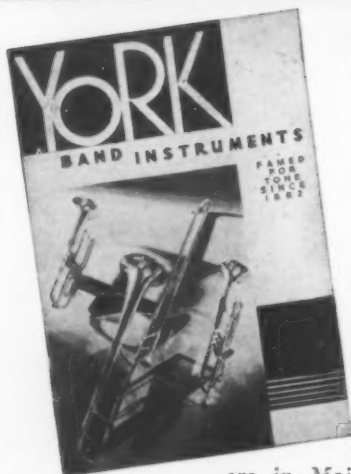
LORING R. ADDITON has been reappointed high school principal at Ellsworth, Me.

In the Colleges

DR. JOHN H. SHERMAN, president of the University of Tampa, Tampa, Fla., has resigned to accept a new position as president of Webber College, Babson Park, Fla.

DR. ROBERT J. HAVIGHURST, director for general education and head of the child growth and development work of the General Education Board, and DR. STEPHEN M. COREY, professor of education and assistant dean of the graduate school of the University of Wisconsin,

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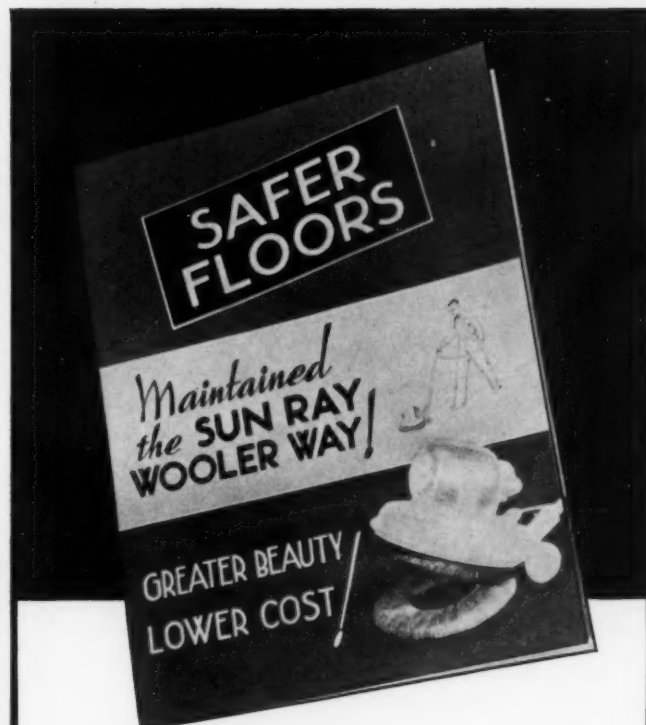
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have been appointed to the faculty of the department of education at the University of Chicago. Doctor Havighurst will become secretary of the Committee on Child Development. Doctor Corey will be professor of education and superintendent of the university's laboratory schools. In this post he will succeed PROF. WILLIAM C. REAVIS, who will devote his efforts to developing more comprehensive field services in the department of education.

CLIFFORD O. T. WEIDEN, a member of the faculty of the Gorham State Normal School, Gorham, Me., has been chosen to succeed S. L. MERRIMAN as principal of Aroostook State Normal School at Presque Isle, Me.

DR. EINAR A. HENSEN, professor of elementary education at Ohio University and principal of the university elementary school, has been appointed dean of the university college and director of the summer session, effective July 1.

FRANK M. PEDIFORD, New York, has been named president of Lalana College, Baker, La., Negro Baptist denominational school.

Retirements and Resignations

L. DUDLEY WILCOX, principal of the Abelard Reynolds School 42, Rochester, N. Y., will retire in June. He has taught in New York State more than thirty-three years.

MABEL PETRIE, principal of the East Frankfort School, Ilion, N. Y., will retire in June after more than forty years of teaching.

A. LAURA MCGREGOR, director of research and coordinator of child services for the Rochester public schools, Rochester, N. Y., will retire in June.

DR. H. A. BABB, for five years president of Morehead Teachers College, Morehead, Ky., is resigning July 1. DR. WILLIAM H. VAUGHAN, dean, was elected to succeed Doctor Babb for a two year term.

DR. ARTHUR E. BROWN has resigned as headmaster of the Harrisburg Academy, Harrisburg, Pa., after twenty-eight years of service because of ill health.

DR. DENNIS D. BRANE has resigned as dean of Otterbein College because of ill health.

W. L. GARRISON, high school principal at Cowden, Ill., for the last four years, has resigned to become principal at Moweaqua, Ill.

EVERETT PRIEST has resigned as principal of Rensselaer Falls High School, Rensselaer Falls, N. Y., to teach science near Rochester, N. Y. JOHN LOUCKS has been appointed new principal.

WILLIS E. BILDERBACK, supervising principal of the Keyport school system at Keyport, N. J., for the last twenty-two years, has resigned, effective at the end of the present school year. JOHN O.

HARTZLER, principal of the local high school, was named supervising principal. JOSEPH R. KLECKNER of Moorestown, N. J., was named principal of the high school. MRS. MADELINE R. WEBSTER, a teacher in the high school, was named principal of the grammar school.

DR. CARMON ROSS has resigned as president of the Edinboro State Teachers College, Edinboro, Pa.

GEORGE S. HOPKINSON has resigned from the principalship of the East Herkimer School, East Herkimer, N. Y., to become principal at Stittville, N. Y.

VERNON L. SIMMONS, for thirteen years principal of the senior high school at

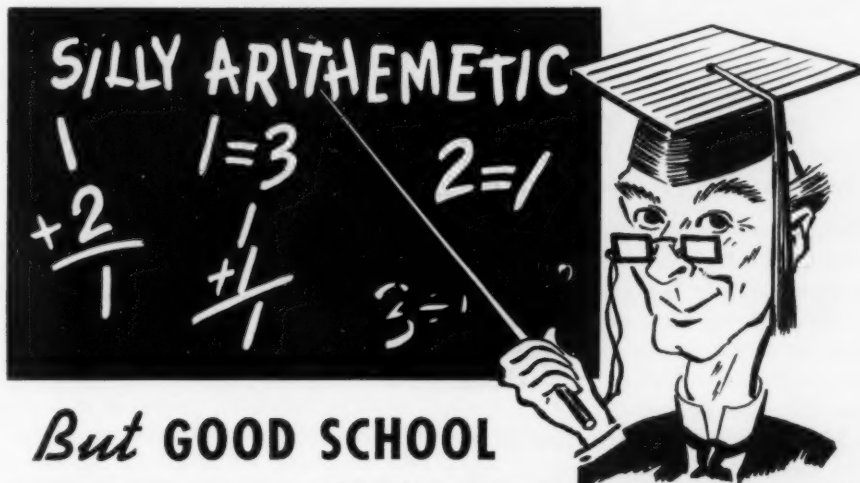
Hamburg, N. Y., has resigned to accept the supervising principalship of the Eden Central Consolidated School, Eden, N. Y.

Deaths

EDGAR A. LEWIS, principal of Wayland High School, Wayland, N. Y., for thirteen years, died at Rochester on April 15.

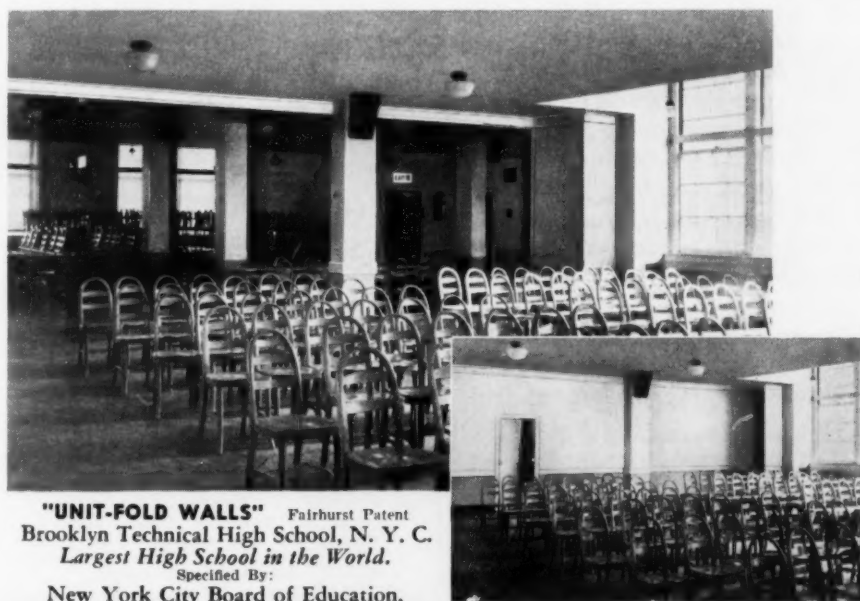
LESTER H. RICH, assistant secretary, Detroit board of education, died of a heart attack recently.

DR. JOHN J. COSS, dean of the summer session at Columbia University and a member of the board of trustees of Dillard University, died in New Orleans recently of cerebral hemorrhage.



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St. Louis Names a Superintendent

(Continued from page 51)

Omaha, Neb.; Edward Bowsher, Toledo, Ohio; Leland Lamb, Flint, Mich.; Carroll R. Reed, Minneapolis; Archie Threlkeld, Montclair, N. J., and Worcester Warren, Bridgeport, Conn.

Not a few outstanding persons with whom the advisory committee was in contact were frankly concerned about the publicity that might be made of their candidacy after their names had been submitted to the board and this led some of them to refuse to be considered. After the list had been made public and the board had made known its plans for interviewing the nominees, Mr. Threlkeld decided to withdraw.

Four of the other men were brought to St. Louis at different

times between April 15 and April 30 for a day of personal interviews. During the morning conferences were held with members of the instruction committee (the St. Louis school board still conducts its business by the use of standing committees) and during the afternoon a conference was held with the entire board of 12 members, or as many of them as found it convenient to be present.

An unusual feature of the interview was a conference with the public on the evening of the same day, in which representatives of teachers' organizations, individual teachers and interested citizens participated.

The board on May 21 agreed to the selection of Homer Anderson.

On the Air During June

The following programs of particular interest to school people are arranged by the Columbia Broadcasting System and the National Broadcasting Company. All programs are listed in Eastern Daylight Saving Time. Watch listings for your local outlets.

Daily

12:30-1:15 p.m.—National Farm and Home Hour (NBC Blue).¹

Sunday

10:30 a.m.—March of Games, children's quiz game program, produced and directed by Nila Mack (CBS).

12:30-1:00 p.m.—On Your Job, vocational guidance program (NBC Red).

1:30-2:00 p.m.—Democracy in Action, a series of programs designed to show the people of the United States how their federal government operates. Produced in cooperation with the U. S. Office of Education (CBS).

2:30-3:00 p.m.—University of Chicago Round Table (NBC Red).

4:30-5:00 p.m.—The World Is Yours, auspices of Smithsonian Institution (NBC Red).

4:30-5:00 p.m.—Invitation to Learning, adult education program of classical literature (CBS).

10:30 p.m.—Columbia Workshop (CBS).

Monday

2:00-2:30 p.m.—Adventure in Reading. Dramatizations of books and lives of famous authors, showing background of their works, by Helen Walpole (NBC Blue).

7:15-7:30 p.m.—Youth in the Tolls, a dramatic series to illustrate the problem of youth in crime presented by the American Law Institute (NBC Blue).

10:00-10:30 p.m.—Gallant American Women, dramatizations depicting the important part women have played and are playing in the activities of American life; produced in cooperation with the U. S. Office of Education (NBC Blue).

Tuesday

4:15 p.m.—Of Men and Books, reviews of current books and discussions of contemporary authors by Prof. John T. Frederick of Northwestern University (CBS).

9:00 p.m.—Cavalcade of America (NBC Blue).

Wednesday

2:00-2:15 p.m.—Music for Young Listeners (NBC Blue).

2:15 p.m.—Echoes of History, cooperation of General Federation of Women's Clubs; dramatizations of famous orations of history (NBC Blue).

Thursday

2:00-2:30 p.m.—How Do You Know? Dramatizations based on exhibits at Field Museum of Natural History (NBC Blue). Ends June 7.

4:00 p.m.—Adventures in Science, Interviews with prominent scientists by Watson Davis, director, Science Service (CBS).

Friday

1:45-2:00 p.m.—General Federation of Women's Clubs, consumers' program (NBC Red).

4:00 p.m.—Exploring Space (CBS).

7:30-8:00 p.m.—Yesterday's Children, series on well-known children's books (NBC Blue).

10:30-10:45 p.m.—Story Behind the Headlines, as told by Cesar Saerchinger. Broadcast in cooperation with the American Historical Association (NBC Red).

Saturday

10:45-11:00 a.m.—The Child Grows Up, talks by Katherine Lenroot, head of Children's Bureau, U. S. Department of Labor (NBC Blue).

12:00-12:25 p.m.—American Education Forum, current series devoted to outstanding experimental colleges in the field of general education with Dr. Grayson Kefauver of Stanford University (NBC Blue).

12:30-1:00 p.m.—Nila Mack's Let's Pretend, dramatic adaptations of fairy tales and original fantasies by the CBS director of children's programs. Roles enacted by cast of junior stock company of the air (CBS).

1:15 p.m.—Highways to Health, medical talks for the layman, arranged by the New York Academy of Medicine (CBS).

2:00 p.m.—I Am an American (NBC Red).

5:00-5:15 p.m.—Magic Waves, latest developments in science of radio, discussed by Dr. Orestes H. Caldwell, editor of *Radio Today*, with dramatizations by Gerald Holland (NBC Blue).

5:30-6:00 p.m.—The Human Adventure, dramatization of the progress of university scientific research presented by the University of Chicago (CBS).

7:00 p.m.—People's Platform, round table discussion of social, economic and political problems, Lyman Bryson, chairman (CBS).

¹Except Sunday.

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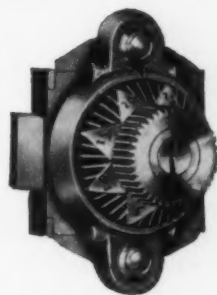
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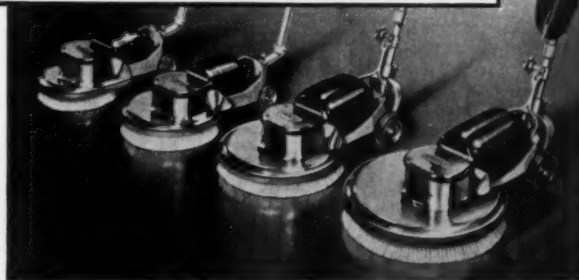
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The Bookshelf

EDUCATIONAL YEARBOOK OF THE INTERNATIONAL INSTITUTE OF TEACHERS COLLEGE, COLUMBIA UNIVERSITY, 1939. Edited by I. L. Kandel. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. xxiv+364. \$3.70.

The institute's sixteenth yearbook discusses "The Meaning of a Liberal Education in the Twentieth Century." Educators in 17 countries present their points of view. The contrasts make interesting reading.

SCHOOLS FOR DEMOCRACY. Compiled by Charl O. Williams, Assisted by Frank W. Hubbard. Chicago: National Congress of Parents and Teachers, 1939. Pp. 239.

The National Congress of Parents and Teachers submits its second volume ("Our Public Schools," 1938, was the first) with the conviction that "the story of American education not only opens a panorama of achievement to the reader but gives him renewed pride in our public schools and high faith in their future. This story is dramatically yet accurately told by a group of outstanding educators. Valuable for interpretative purposes.

INTEGRATION AT WORK. *Six Greek Cities: An Experience With Social Studies, Literature and Art in the Modern High School.* By J. R. Stolper and Henry C. Fenn. New York: Bureau of Publications, Teachers College, Columbia University, 1939. Pp. vii+166. \$1.85.

Report of an interesting instructional experiment that may have value for other schools and teachers that are experimentally inclined.

GUIDANCE FOR COLLEGE STUDENTS. By Margaret E. McCaul. Scranton, Pa.: International Textbook Company, 1939. Pp. xiii+231. \$1.80.

Designed for use by college advisers in counseling underclassmen.

THE BOOK OF FISHES. Edited by John Oliver La Gorce. Illustrated. Washington, D. C.: National Geographic Society, 1939. Pp. 367. \$3.50.

If you want any information on American fishes, here's your opportunity. A most informative book on fishes and marine life with 131 species painted from life, 100 paintings of other species of marine life, 162 action photographs, and biographies and life histories.

GUIDANCE IN PUBLIC SECONDARY SCHOOLS. Edited by Arthur E. Traxler. *Educational Records Bulletin No. 28, October, 1939.* New York: Educational Records Bureau, 1939. Pp. xxv+329.

Report of a five year experimental study of guidance activity in a selected group of secondary schools in seven centers, with special emphasis on the value of cumulative records.

IN-SERVICE GROWTH OF SOCIAL STUDIES TEACHERS. 1939 *Tenth Yearbook*, Burr W. Phillips, Editor. Cambridge, Mass.: The National Council for the Social Studies, 1939. Pp. v+187. Paper Cover, \$2. Cloth Cover, \$2.30.

Devoted to the personnel problems of the social studies teachers.

THE OUTLOOK FOR HIGHER EDUCATION. Compiled and Edited by John Dale Russell. Chicago: University of Chicago Press, 1939. Pp. x+256. \$2.

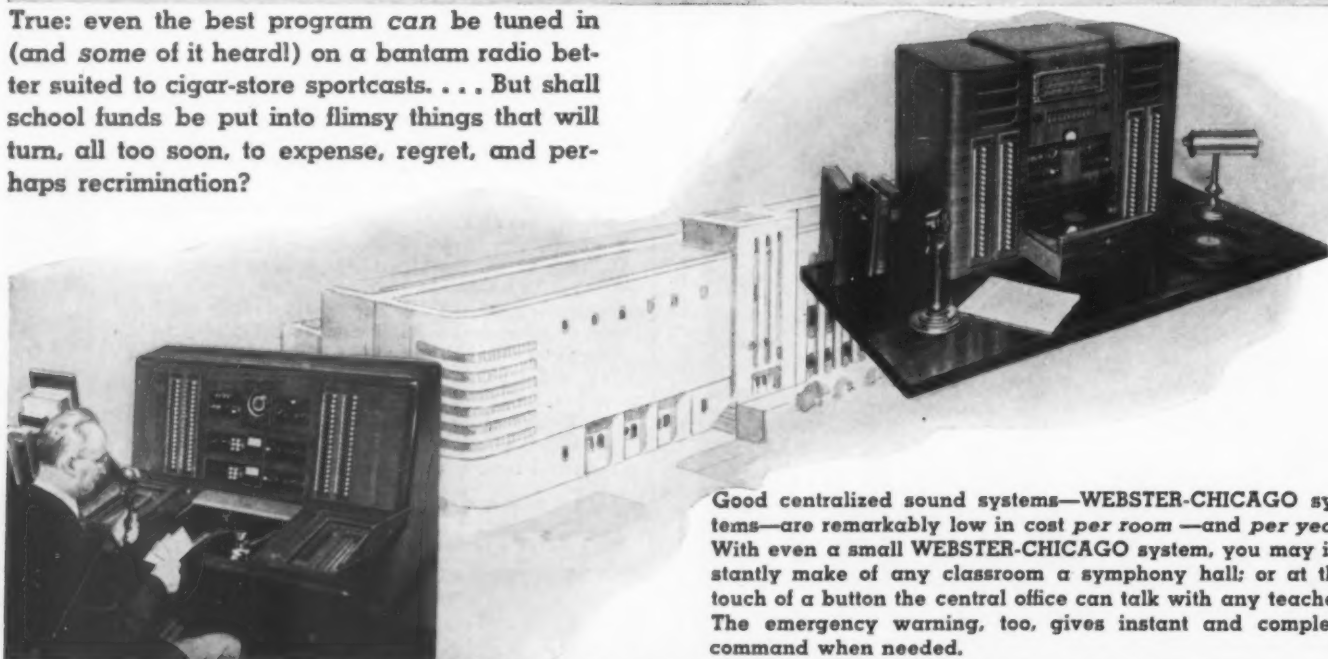
Eighteen individuals contribute to this symposium on different phases of advanced education featuring financial problems.

THE FUTURE OF THE SOCIAL STUDIES. *Proposals for an Experimental Social Studies Curriculum.* Edited by James A. Michener. Cambridge, Mass.: National Council for the Social Studies, 1939. Pp. 178. \$1.50 (Paper Cover).

Seventeen educators and educationists present to the profession their views of

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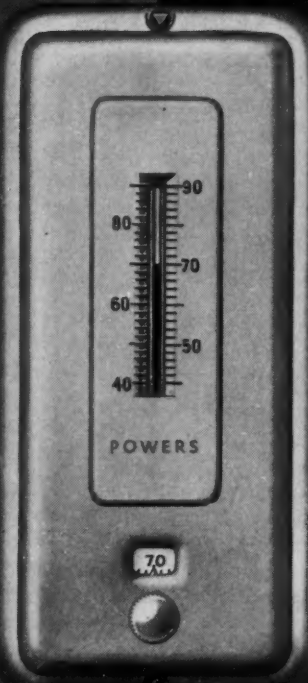
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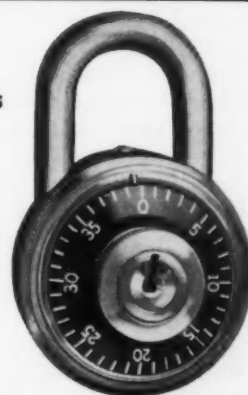
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what they think should be done in the moot field of the social studies.

HANDBOOK OF THE WAR. By John C. de Wilde, David H. Popper and Eunice Clark. Boston: Houghton Mifflin Company, 1939. Pp. 248. Maps and Pictograms. \$2.

Competent survey of the military and technological strength of the warring nations and those which may be fighting next. Written clearly and simply so that the layman can easily comprehend the major problems. A "must" for those who desire to keep themselves informed of the probable war trends.

HAMPTON COURT PALACE. Prepared by the Royal Commission on Historical Monuments, England. London: Official Publication of the British Government, 1939. Pp. 58. Halftone Reproductions. \$0.75.

Collection of exteriors, interiors and architectural details of this important example of Tudor architecture. May be obtained in the United States from the British Library of Information, New York.

FURS TO FURROWS. By Sidney Greenbie. Caldwell, Ida.: The Caxton Printers, Ltd., 1939. Pp. 413. Illustrated. \$3.50.

The epic of life beyond the rapidly moving western frontier. Indians, horses, buffaloes and, particularly, the mountain men, those sturdy and colorful individu-

alists who blazed the trails and prepared the way for the plow and fenced homesteads, live again. Colorful, robust and vibrant is this tale of the presettlement days. A dramatic aspect of American history to thrill adolescent and adult alike.

NINETEEN FORTY. By Jay Franklin. New York: The Viking Press, 1940. Pp. 319. \$2.75.

Analysis of the current political situation with a glimpse into the future through the eyes of a liberal newspaperman. Stimulating reading regardless of agreement or disagreement with the bold strokes of a prophet's brush. Highly recommended.

THE PHILOSOPHY OF PHYSICAL SCIENCE. By Sir Arthur Eddington. New York: The Macmillan Company, 1939. Pp. 230. \$2.50.

An examination of the nature and extent of our physical knowledge together with an outline of a general philosophy that a scientist may accept without any inconsistency.

BODY, BOOTS AND BRITCHES. By Harold W. Thompson. Philadelphia: J. B. Lippincott Company, 1940. Pp. 530. \$3.50.

Here is unusual history—the songs, ballads and tall tales of New York State—done into book form by an author with a lusty appreciation of the fictional

halos that have developed about our ancestors. The writing has the smell of the heavy forests and the tang of the open sea. Every school library should have a copy.

THE ALL-AMERICAN FRONT. By Duncan Aikman. New York: Doubleday, Doran & Company, Inc., 1940. Pp. 344. \$3.

Our neighbors to the south are analyzed and explained in most readable style. With a thorough appreciation of the Latin American background and character, the author talks much common sense. A book that should be read by all teachers.

INTRODUCTION TO THE DANCE. By John Martin. New York: W. W. Norton & Company, 1939. Pp. 313. Illustrated. \$3.50.

The analysis of the dance as a fine art as expressed in different cultures from early times to the present with particular emphasis upon its relation to our contemporary life. Excellent illustrations. Appeal: elementary and secondary school teachers.

FINLAND. By J. Hampden Jackson. New York: The Macmillan Company, 1940. Pp. 243. \$2.

Brief history of the Finns and Finland from the first century of the Christian era simply but interestingly told. A reading of the book provides deeper ap-

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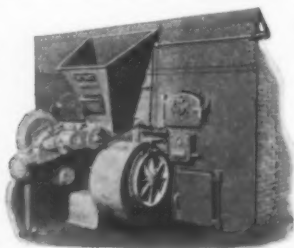
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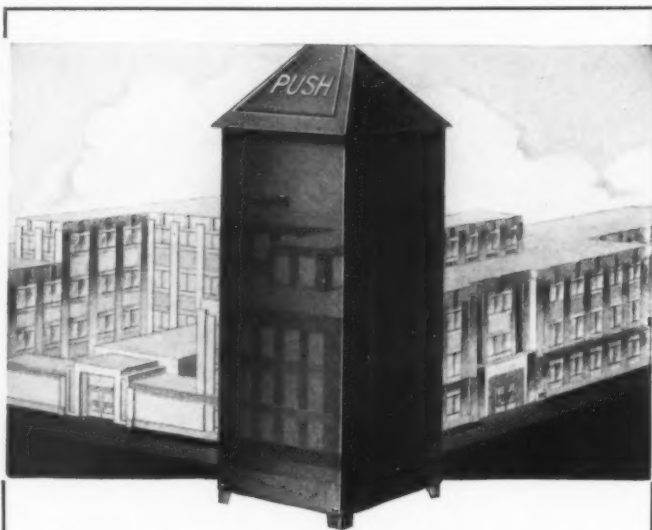
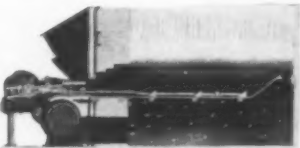
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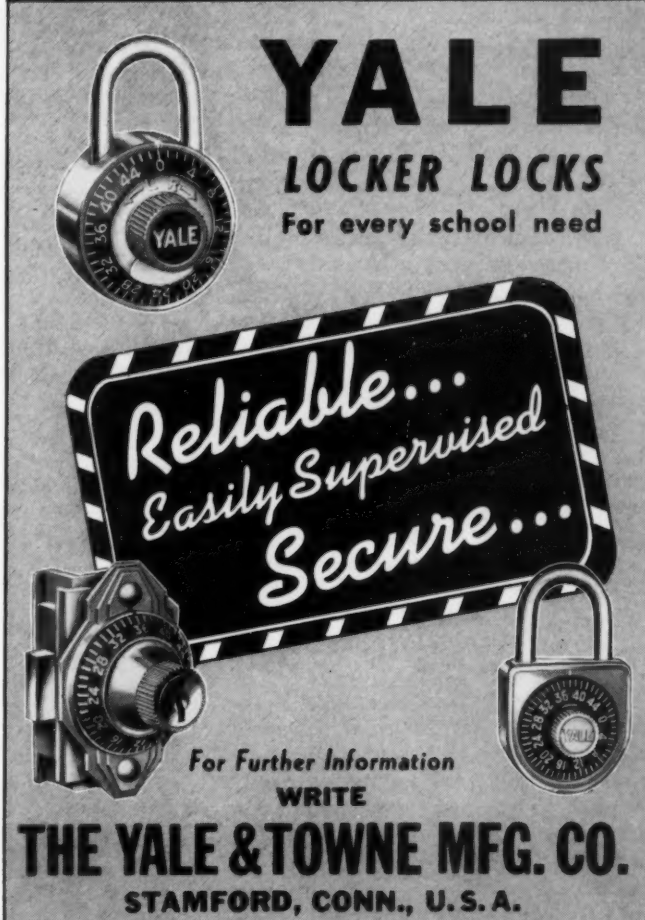
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THE AMERICAN NOVEL, 1789-1939. Revised and Enlarged Edition. By Carl Van Doren. New York: The Macmillan Company, 1940. Pp. 406. \$3.

In 1921, Van Doren published his first effort under this title. Nineteen years later he rewrote it completely, doubling its size. The first edition was received with great enthusiasm by those whose interest lay in this field. This second and enlarged edition, including the full 150 years of American literary effort and improved by rewriting, should meet an even more cordial reception. Institutional appeal: upper secondary and college years.

KNIGHT OF THE SEAS. The Adventurous Life of John Paul Jones. By Valentine Thomson. (Illustrated). New York: Liveright Publishing Corporation, 1939. Pp. 608. \$3.50.

A new and detailed biography of the great American naval hero, which seeks to explain the stream of personal difficulties that interfered so constantly with his unusual successes. The author not only presents the usual facts concerning John Paul Jones but delves more deeply into his personal history than have previous writers. Adult reading.

Trade News

Appointed Agent

The National Union Radio Corporation, Newark, N. J., has been appointed the exclusive selling agent for the Erwood Sound Equipment Company of Chicago.

Put Slide Binder on Market

The 2 by 2 inch slide binder used by the Society for Visual Education, Inc., Chicago, in its own film library, is now being made available to the general market. Different from the glass slide film holders in general use, this slide binder permits automatic centering of the glass and film in a fiber cushion frame. To this frame is glued a gummed cover of tough Kraft paper, which holds the glass and film rigidly in place and forms a dustproof seal.

New Weber Costello Product

The Weber Costello Company, Chicago Heights, Ill., has announced a new Reality Series of Political-Physical Maps under the authorship of Edith Putnam Parker. At this time the Reality Political-Physical Map of South America is the only map available but additional

maps are being developed to complete the series.

Insulated Interior Finishes

New insulating interior finishes, in colors that provide excellent light reflection and decorative treatment for school interiors, have been placed on the market by the Celotex Corporation, 919 North Michigan Avenue, Chicago. Most recent additions to the line are light green and buff and a new ripple blend finish of four harmonious light copper and mahogany tones. Also added is a tough-surfaced wainscoting material in a leather-brown tone.

Self-Firing Air Conditioner

A self-firing winter air conditioner has been introduced by the Iron Fireman Manufacturing Company, Cleveland. The new unit is a self-contained warm air conditioner complete with furnace, stoker, humidifier, circulator and air filters. By means of a screw conveyor which fits into a near-by fuel bin, the new unit feeds itself with coal. The circulating air fan is driven by a separate motor, independently of the stoker unit.

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JUNE 29-JULY 4

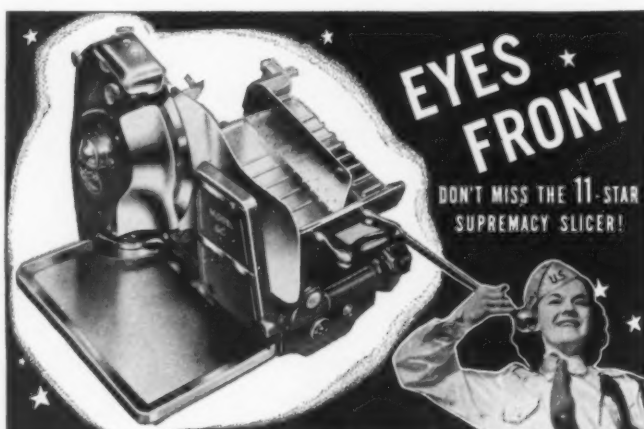
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Size AB, one of 30
Models 120 Styles
developed on our
movable pedestal.



Write for our illustrated booklet "TRUTH ON A PEDESTAL" and prepare for an entirely new conception of what you rightfully may expect of school desks in the way of functional utility.

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SUPREMACY SLICER!

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Nothing can compare with the speedy, smooth performance of this de luxe slicer—today's most efficient machine for all-around food service.

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LA PORTE, IND.

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*A Community of Interests
in the Building and Archi-
tectural Fields*

HERE in this 18-story building, within 500 feet of the main entrance to the Grand Central Station, will be found permanent exhibit rooms of construction materials and equipment—the offices of architects, engineers, builders and manufacturers serving schools—a veritable community of interests in the building field. Obviously, here is a logical center for those whose enterprises concern building and who wish to find association among other industries and manufacturers having a common purpose—to improve and develop perfection in the school plant. Floor plans of available show-room and office space will be mailed upon request.



School Executives and Architects are invited to visit the offices of The NATION'S SCHOOLS in Room 1221 of the Architects Building. A special conference room has been arranged for any convenience they might wish. The many exhibits and features of the building will be introduced to them if desired.

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L. E. WITNEY, *Managing Director*

Each unit is equipped with two spun glass filters, which are located in the cold air return chamber so that only clean air will pass through the unit.

Emergency Lighting Unit

A new emergency lighting unit is now ready to be marketed by Triumph Explosives, Inc., of Elkton, Md. It consists of a panel fastened to the wall in an accessible place and connected by wire to a light suspended in the room where illumination would be required in an emergency. The light is a long fluorescent tube fitted into a reflector designed especially to give maximum illumination.

For Protecting Water Supplies

"W & T Hypochlorinators," a new eight page illustrated booklet published by Wallace and Tiernan Co., Inc., Newark, N. J., describes this simple, inexpensive means of protecting small water supplies from contamination. Illustrations show Hypochlorinators adapted to three types of operation: electrical, water (manual) and water (automatic).

New Floor Sealer

Valdura, a new floor sealer developed by American Asphalt Paint Company, 43 East Ohio Street, Chicago, is said to seal the grain of the wood and at the same time to provide a waxed and polished surface.

It can be applied with a mop or brush. Only one coat is needed and one gallon will cover about 800 square feet of floor surface.

Self-Closing Inkwell

Squires Inkwell Co., McKenna Building, Pittsburgh, has announced its new Perfection, a self-closing inkwell. The self-closing feature is merely a glass ball, self-sealing after each dip of the pen.

Silent Action Flush Valve

A new line of Watrous silent action flush valves, embodying a new, screenless type of silencing equipment which eliminates all objectionable flush valve noise, has been announced by the Imperial Brass Manufacturing Company, 1200 West Harrison Street, Chicago. Equipment is completely described in a manufacturer's bulletin, "A Scientific Method of Silencing Flush Valves."

Modern Folding Door

A new type of folding door consists of a series of vertical, semirigid pleats of fabrikoid covering a steel frame foundation. The door slides on an overhead track and collapses like an accordion when opened; it retains its pleats at any position at which it stops. This method of operation eliminates the need for extra space for swinging doors. The

7A 10/7 7
fabric has a leather like graining and comes in a range of colors. Its surface is washable. This Modernfold door is manufactured by New Castle Products, New Castle, Ind.

Three Dimension Projector

For the first time in the history of the manufacture of visual aids for selling and teaching, an automatic projector for showing glass slides in three dimensions is now being made. It is the Real Life Projector of the Three Dimension Corporation, New Holstein, Wis. Life-size pictures in full color are projected upon the screen. Each picture has the true depth of perspective that one sees in viewing the actual scene, thus bringing a life-like realism into the classroom. When the projected picture is viewed through Polaroid glasses, objects appear at their true distances from the observer.

Low Cost Acoustical Material

A new acoustical material called Fibra-coustic was announced recently by Johns-Manville, 22 East Fortieth Street, New York City. The material is a wood fiber product of low density with a factory applied paint finish. Tests show the material to have a noise reduction coefficient of 75 per cent. Standard colors are white, light buff, medium buff, fawn, French gray and apple green.

NEW 1940 MODELS IN ROYAL FOLDING CHAIRS

1. MOST COMPLETE LINE for institutional and public use.
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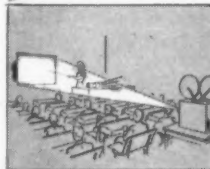
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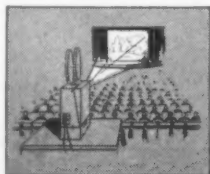
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